

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At the end of the sequence listing below column 103, please insert the following sequence identifiers and sequences.

(2) INFORMATION FOR SEQ ID NO: 31:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 38 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

Arg Trp Pro Ser Val Gly Tyr Lys Gly Asn Gly Ser Asp Thr Ile Asp
1 5 10 15
Val His Ser Asn Asp Ala Ser Thr Lys Arg Ser Leu Ile Tyr Asn His
 20 25 30
Arg Arg Pro Leu Phe Pro
 35

(2) INFORMATION FOR SEQ ID NO: 32:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 39 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

Arg Thr Phe Glu Asn Asp Gly Leu Gly Val Gly Arg Ser Ile Gln Lys
1 5 10 15
Lys Ser Asp Arg Trp Tyr Ala Ser His Asn Ile Arg Ser His Phe Ala
 20 25 30
Ser Met Ser Pro Ala Gly Lys
 35

(2) INFORMATION FOR SEQ ID NO: 33:

(i) SEQUENCE CHARACTERISTICS:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(A) LENGTH: 44 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:
Ser Tyr Cys Arg Val Lys Gly Gly Gly Glu Gly Gly His Thr Asp Ser
1 5 10 15
Asn Leu Ala Arg Ser Gly Cys Gly Lys Val Ala Arg Thr Ser Arg Leu
20 25 30
Gln His Ile Asn Pro Arg Ala Thr Pro Pro Ser Arg
35 40

(2) INFORMATION FOR SEQ ID NO: 34:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:
Ser Trp Thr Arg Trp Gly Lys His Thr His Gly Gly Phe Val Asn Lys
1 5 10 15
Ser Pro Pro Gly Lys Asn Ala Thr Ser Pro Tyr Thr Asp Ala Gln Leu
20 25 30
Pro Ser Asp Gln Gly Pro Pro
35

(2) INFORMATION FOR SEQ ID NO: 35:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:
Ser Gln Val Asp Ser Phe Arg Asn Ser Phe Arg Trp Tyr Glu Pro Ser
1 5 10 15
Arg Ala Leu Cys His Gly Cys Gly Lys Arg Asp Thr Ser Thr Thr Arg
20 25 30
Ile His Asn Ser Pro Ser Asp Ser Tyr Pro Thr Arg
35 40

(2) INFORMATION FOR SEQ ID NO: 36:
(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:
Ser Phe Leu Arg Phe Gln Ser Pro Arg Phe Glu Asp Tyr Ser Arg Thr
1 5 10 15
Ile Ser Arg Leu Arg Asn Ala Thr Asn Pro Ser Asn Val Ser Asp Ala
20 25 30
His Asn Asn Arg Ala Leu Ala
35

(2) INFORMATION FOR SEQ ID NO: 37:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:
Arg Ser Ile Thr Asp Gly Gly Ile Asn Glu Val Asp Leu Ser Ser Val
1 5 10 15
Ser Asn Val Leu Glu Asn Ala Asn Ser His Arg Ala Tyr Arg Lys His
20 25 30
Arg Pro Thr Leu Lys Arg Pro
35

(2) INFORMATION FOR SEQ ID NO: 38:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:
Ser Ser Lys Val Ser Ser Pro Arg Asp Pro Thr Val Pro Arg Lys Gly
1 5 10 15
Gly Asn Val Asp Tyr Gly Cys Gly His Arg Ser Ser Ala Arg Met Pro
20 25 30
Thr Ser Ala Leu Ser Ser Ile Thr Lys Cys Tyr Thr
35 40

(2) INFORMATION FOR SEQ ID NO: 39:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 amino acids

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(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:
Arg Ala Ser Thr Gln Gly Arg Gly Val Ala Pro Glu Phe Gly Ala
1 5 10 15
Ser Val Leu Gly Arg Gly Cys Gly Ser Ala Thr Tyr Tyr Thr Asn Ser
20 25 30
Thr Ser Cys Lys Asp Ala Met Gly His Asn Tyr Ser
35 40

(2) INFORMATION FOR SEQ ID NO: 40:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:
Arg Trp Cys Glu Lys His Lys Phe Thr Ala Ala Arg Cys Ser Ala Gly
1 5 10 15
Ala Gly Phe Glu Arg Asp Ala Ser Arg Pro Pro Gln Pro Ala His Arg
20 25 30
Asp Asn Thr Asn Arg Asn Ala
35

(2) INFORMATION FOR SEQ ID NO: 41:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:
Ser Phe Gln Val Tyr Pro Asp His Gly Leu Glu Arg His Ala Leu Asp
1 5 10 15
Gly Thr Gly Pro Leu Tyr Ala Met Pro Gly Arg Trp Ile Arg Ala Arg
20 25 30
Pro Gln Asn Arg Asp Arg Gln
35

(2) INFORMATION FOR SEQ ID NO: 42:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 amino acids
(B) TYPE: amino acid

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- (C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:
Ser Arg Cys Thr Asp Asn Glu Gln Cys Pro Asp Thr Gly Thr Arg Ser
1 5 10 15
Arg Ser Val Ser Asn Ala Arg Tyr Phe Ser Ser Arg Leu Leu Lys Thr
20 25 30
His Ala Pro His Arg Pro
35
- (2) INFORMATION FOR SEQ ID NO: 43:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:
Ser Ala Arg Asp Ser Gly Pro Ala Glu Asp Gly Ser Arg Ala Val Arg
1 5 10 15
Leu Asn Gly Val Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser Asn
20 25 30
Pro Arg Gly Arg Arg His Pro
35
- (2) INFORMATION FOR SEQ ID NO: 44:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:
Ser Ser Ala Asp Ala Glu Lys Cys Ala Gly Ser Leu Leu Trp Trp Gly
1 5 10 15
Arg Gln Asn Asn Ser Gly Cys Gly Ser Pro Thr Lys Lys His Leu Lys
20 25 30
His Arg Asn Arg Ser Gln Thr Ser Ser Ser Ser His
35 40
- (2) INFORMATION FOR SEQ ID NO: 45:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>

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(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:
Arg Pro Lys Asn Val Ala Tyr Ser Ser Gln Asp Gly Ala Ala
1 5 10 15
Ala Glu Glu Thr Ser His Ala Ser Asn Ala Ala Arg Lys Ser Pro Lys
20 25 30
His Lys Pro Leu Arg Arg Pro
35

(2) INFORMATION FOR SEQ ID NO: 46:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:
Arg Gly Ser Thr Gly Thr Ala Gly Gly Glu Arg Ser Gly Val Leu Asn
1 5 10 15
Leu His Thr Arg Asp Asn Ala Ser Gly Ser Gly Phe Lys Pro Trp Tyr
20 25 30
Pro Ser Asn Arg Gly His Lys
35

(2) INFORMATION FOR SEQ ID NO: 47:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:
Arg Trp Gly Trp Glu Arg Ser Pro Ser Asp Tyr Asp Ser Asp Met Asp
1 5 10 15
Leu Gly Ala Arg Arg Tyr Ala Thr Arg Thr His Arg Ala Pro Pro Arg
20 25 30
Val Leu Lys Ala Pro Leu Pro
35

(2) INFORMATION FOR SEQ ID NO: 48:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

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(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

Arg Gly Trp Lys Cys Glu Gly Ser Gln Ala Ala Tyr Gly Asp Lys Asp
1 5 10 15
Ile Gly Arg Ser Arg Gly Cys Gly Ser Ile Thr Lys Asn Asn Thr Asn
20 25 30
His Ala His Pro Ser His Gly Ala Val Ala Lys Ile
35 40

(2) INFORMATION FOR SEQ ID NO: 49:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

Ser Arg Glu Glu Ala Asn Trp Asp Gly Tyr Lys Arg Glu Met Ser His
1 5 10 15
Arg Ser Arg Phe Trp Asp Ala Thr His Leu Ser Arg Pro Arg Arg Pro
20 25 30
Ala Asn Ser Gly Asp Pro Asn
35

(2) INFORMATION FOR SEQ ID NO: 50:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 44 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

Glu Trp Tyr Ser Trp Lys Arg Ser Ser Lys Ser Thr Gly Leu Gly Asp
1 5 10 15
Thr Ala Thr Arg Glu Gly Cys Gly Pro Ser Gln Ser Asp Gly Cys Pro
20 25 30
Tyr Asn Gly Arg Leu Thr Thr Val Lys Pro Arg Lys
35 40

(2) INFORMATION FOR SEQ ID NO: 51:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 44 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

Arg Glu Phe Ala Glu Arg Arg Leu Trp Gly Cys Asp Asp Leu Ser Trp
1 5 10 15
Arg Leu Asp Ala Glu Gly Cys Gly Pro Thr Pro Ser Asn Arg Ala Val
20 25 30
Lys His Arg Lys Pro Arg Pro Arg Ser Pro Ala Leu
35 40

(2) INFORMATION FOR SEQ ID NO: 52:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 44 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys Glu
1 5 10 15
Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly Arg Lys
20 25 30
Val Phe Asn Arg Arg Arg Pro Ser Ala Ile Pro Thr
35 40

(2) INFORMATION FOR SEQ ID NO: 53:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 44 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

Arg His Ile Ser Glu Tyr Ser Phe Ala Asn Ser His Leu Met Gly Gly
1 5 10 15
Glu Ser Lys Arg Lys Gly Cys Gly Ile Asn Gly Ser Phe Ser Pro Thr
20 25 30
Cys Pro Arg Ser Pro Thr Pro Ala Phe Arg Arg Thr
35 40

(2) INFORMATION FOR SEQ ID NO: 54:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 38 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Ser Arg Glu Ser Gly Met Trp Gly Ser Trp Trp Arg Gly His Arg Leu
1 5 10 15
Asn Ser Thr Gly Gly Asn Ala Asn Met Asn Ala Ser Leu Pro Pro Asp
20 25 30
Pro Pro Val Ser Thr Pro
35

(2) INFORMATION FOR SEQ ID NO: 55:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 39 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

Ser Thr Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val Asp
1 5 10 15
Ser Asp Ser Asp Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu
20 25 30
Arg Thr Arg Ser Arg Pro Asn
35

(2) INFORMATION FOR SEQ ID NO: 56:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

TCTCACTCCT CGAGATCCGG CGCTTATGAG AGTCCGGATG GTCGGGGGGG
TCGGAGCTAT 60
GTGGGGGGCG GGGGTGGNTG TGGTAACATT GGTCCGAAGC ATAACCTGTG
GGGGCTGCGT 120
ACCGCGTCGC CGGCCTGCTG GGA CTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 57:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

TCTCACTCCT CGAGTCCTCG CTCTTTCTGG CCCGTTGTGT CCCGGCATGA
GTCGTTTGGG 60
ATCTCTAACT ATTTGGGNTG TGGTTATCGT ACATGTATCT CCGGCACGAT
GACTAAGTCT 120
AGCCCGATT ACCCTCGGCA TTCGTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 58:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

TCTCACTCCT CGAGTAGTAG CTCGATTGG GGTGGTGTGC CTGGGAAGGT
GGTTAGGGAG 60
CGCTTTAAGG GGCGCGTTG TGGTATTTC ATCACCTCCG TGCTCACTGG
GAAGCCCAAT 120
CCGTGTCCGG AGCCTAAGGC GGCCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 59:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

TCTCACTCCT CGAGAGTTGG CCAGTGCACG GATTCTGATG TGCGGCGTCC
TTGGGCCAGG 60
TCTTGCGCTC ATCAGGGTTG TGGTGCGGGC ACTCGCAACT CGCACGGCTG
CATCACCCGT 120
CCTCTCOGCC AGGCTAGCGC TCATTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 60:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

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TCTCACTCCT CGAGCCACTC OGGTGGTATG AATAGGGCCT ACGGGGATGT
GTTTAGGGAG 60
CTTCGTGATC GGTGGAACGC CACTTOCCAC CACACTOGCC CCACCCCTCA
GCTCCCCCGT 120
GGGCTAATT CTAGAATCGA AGGTGCGGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 61:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 168 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

TCTCACTCCT CGAGTCCGTG CGGGGGGTCG TGGGGGCGTT TTATGCAGGG
TGGCCTTTTC 60
GGCGGTAGGA CTGATGGTTG TGGTGCCCAT AGAAACCGCA CTTCTGCGTC
GTTAGAGCCC 120
CCGAGCAGCG ACTACTCTAG AATCGAAGGT CGCGCTAGAC CTTCGAGA 168

(2) INFORMATION FOR SEQ ID NO: 62:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 135 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TCTCACTCCT CGAGGGGCGC CGCCGATCAG CGGCGGGGCT GGTCCGAGAA
CTTGGGGTTG 60
CCTAGGGTGG GGTGGGACGC CATCGCTCAC AATAGCTATA CGTTCAOCTC
GCGCGGCCG 120
CGCCCCCOCT CTAGA 135

(2) INFORMATION FOR SEQ ID NO: 63:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

TCTCACTCCT CGAGCGGTGG GGAGGTCAGC TCCTGGGGCC GCGTGAATGA
CCTCTGCGCT 60
AGGGTGAGTT GGA CTGGTTG TGGTACTGCT CGTCCGCGC GTACCGACAA
CAAAGGCTTT 120

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CTTCCTAAGC ACTCGTCACT CGGCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 64:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

TCTCACTCCT CGAGTGATAG TGACGGGGAT CATTATGGGC TTCGGGGGGG
GGTGCGTTGT 60
TCGCTTCGTG ATAGGGGTTG TGGTCTGGCC CTGTCCACCG TCCATGCTGG
TCCCCCTCT 120
TTTACCCCA AGCTCTCCAG CCCCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 65:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

TCTCACTCCT CGAGGAGCTT GGGTAATTAT GCGGTCACCG GGAAGTGTGGA
CGTGACGGTT 60
TTGCCATGC CTGGCCACGC CAACCACCTT GGTGTCTCT CGCCTCTAG
CTCTGATCCT 120
CCGCGGCGCT CTAGAATCGA AGGTGCGGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 66:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 159 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

TCTCACTCCT CGAGAACTAC GACGGCTAAG GGGTGTCTTC TCGGAAGCTT
CGGCGTTCTT 60
AGTGGGTGCT CATTTACGCC AACCTCTOCA CCGCCCCACC TAGGATACCC
CCCCCACTCC 120
GTCAATTCTA GAATCGAAGG TCGCGCTAGA CCTTOGAGA 159

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(2) INFORMATION FOR SEQ ID NO: 67:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TCTCACTCCT CGAGCCCGAA GTTGTCCAGC GTGGGTGTTA TGAATAAGGT
CACGGAGCTG 60
CCCACGGAGG GGCCTAACGC CATTAGTATT CCGATCTCCG CGACCTCCG
CCCGCGCAAC 120
CCGCTCCGCT CTAGAATCGA AGGTGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 68:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

TCTCACTCCT CGAGGTGGTG CGGCGCTGAG CTGTGCAACT CGGTGACTAA
GAAGTTTCG 60
CGGGCTGGC GGGATCACGC CAATCCCTCC ACCATCATC GTACTCCCCC
GCCCAGCCAG 120
TCCAGCCCTT CTAGAATCGA AGGTGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 69:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 176 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

TCTCACTCCT CGAGGTGGTG CGGCGCTGAT GACCGTGTG GTGCCAGTCG
TTGGCGGGG 60
GGCAACAGCT TGTTTGGTTG TGGTCTCGT TGTAGTGCGG CGCAGAGCAC
CCCGAGTGGC 120
AGGATCCATT CCACTTCGAC CAGCTCTAGA ATCGAAGGTG CGCTAGACCT TCGAGA
176

(2) INFORMATION FOR SEQ ID NO: 70:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TCTCACTCCT CGAGTAAAGTC CGGGGAGGGG GGTGACAGTA GCAGGGGCGA
GACGGGCTGG 60
GCGAGGGTTC GGTCTACGC CATGACTGCT GGCCGCTTTC GGTGGTACAA
CCAGTTGCCC 120
TCTGATCGGT CTAGAATCGA AGTCCCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 71:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 159 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

TCTCACTCCT CGAGGTCGAG CGCCAATAAT TCGAGTGGA AGTCTGATTG
GATGCGCAGG 60
GCCTGTATTG CTCGTTACGC CAACAGTTG GGCCCCGCC GCGCCGTCTGA
CACTAAGGCC 120
GCGCCCTCTA GAATCGAAGG TCGCGCTAGA CCTTCGAGA 159

(2) INFORMATION FOR SEQ ID NO: 72:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

TCTCACTCCT CGAGTAAAGTG GTCGTGGAGT TCGAGGTGGG GCTCCCCCGA
GGATAAGGTT 60
GAGAAGACCA GGGCGGGTTG TGGTGGTAGT CCCAGCAGCA CCAATTGTCA
CCCTACACC 120
TTTGCCCCC CCGCAAGC CGGCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 73:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

TCTCACTCCT CGAGTGGGTT CTGGGAGTTT AGCAGGGGGC TTTGGGATGG
GGAGAACCGT 60
AAGAGTGTCC GGTCGGGTTG TGGTTTTCGT GGCTCCTCTG CTCAGGGCCC
GTGTCCGGTC 120
ACGCCTGCCA CCATTGACAA ACACTCTAGA ATCGAAGGTC GCGCTAGACC TTOGAGA
177

(2) INFORMATION FOR SEQ ID NO: 74:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TCTCACTCCT CGAGTGAGAG CGGGCGGTGC CGTAGCGTGA GCCGGTGGAT
GACGACGTGG 60
CAGACGCAGA AGGGCGGTTG TGGTTCCAAT GTTTCGCCG GTTCGCCCCCT
CGACCCCTCT 120
CACCAGACCG GGCATGCCAC TACTTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 75:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

TCTCACTCCT CGAGGGAGTG GAGGTTTGCC GGGCCGCCGT TGGACCTGTG
GGCGGGTCCG 60
AGCTTGCCCT CTTTAAACGC CAGTTOCCAC CCTCGCGCCC TGCGCACCTA
TTGGTCCAG 120
CGGCCCCGCT CTAGAATCGA AGGTGCGGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 76:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

TCTCACTCCT CGAGGATGGA GGACATCAAG AACTCGGGGT GGAGGGACTC
TTGTAGGTGG 60
GGTGACCTGA GGCCTGGTTG TGGTAGCCGC CAGTGGTACC CCTCGAATAT
GCGTTCTAGC 120
AGAGATTACC CCGCGGGGGG CCACTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 77:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 152 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

TCTCACTCCT CGAGTCATCC GTGGTACAGG CATTGGAACC ATGGTGACTT
CTCTGGTTGG 60
GGCCAGTCAC GCCACACCCC GCCGGAGAGC CCCCACCCCG GCCGCCCTAA
TGCCACCATT 120
TCTAGAATCG AAGGTCGCGC TAGACCTTCG AG 152

(2) INFORMATION FOR SEQ ID NO: 78:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

TCTCACTCCT CGAGATATAA GCACGATATC GGTTCGGATG CTGGGGTTGA
CAAGAAGTCG 60
TCGTCTGTGC GTGGTGGTTG TGGTGCTCAT TNGTCGCCAC CCGCGGCCGG
CCGTGGTCCT 120
CGCGGCACGA TGGTTAGCAG GCTTTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

TCTCACTCCT CGAGTCAGGG CTCCAAGCAG TGTATGCACT ACCGCACCGG
TCGTTTGACG 60

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

GTGGGGTCTG AGTATGGTTG TGGTATGAAC CCGCCCCGCC ATGCCACGCC
CGCTTATCCG 120
GCGCGCTGC TGCCACGCTA TCGCTCTAGA ATCGAAGGTC GCGCTAGAAC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 80:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

TCTCACTCCT CGAGTGGGCG GACTACTAGT GAGATTCTG GGCTCTGGGG
TTGGGGTGAC 60
GACCGGAGCG GTTATGGTTG GGGTAACAAG CTCCGCCCA ACTACATCCC
TTATAGGCAG 120
GCGACGAACA GGCATCGTTA TACGTCTAGA ATCGAAGGTC GCGCTAGAAC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 81:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

TCTCACTCCT CGAGGTGGAA TTGGACTGTC TTGCCGCCA CTGGCGGCCA
TTACTGGACG 60
CGTTCGACGG ACTATCACGC CATTAACAAT CACAGGCCGA GCATCCCCCA
CCAGCATCCG 120
ACCOCTATCT CTAGAATCGA AGGTGCGGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

TCTCACTCCT CGAGTTGGTC GTCGTGGAAT TGGAGCTCTA AGACTACTCG
TCTGGGCGAC 60
AGGGCGACTC GGGAGGGTTG TGGTOCCAGC CAGTCTGATG GCTGTCTTA
TAACGGCCGC 120

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

CTTACGACCG TCAAGCCTCG CACGTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 83:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 156 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

TCTCACTCCT CGAGTGGTAG TTTGAAAGCA TGGCAACCGC GGTTCATGGGT
GGGGGGCGCG 60
TTCCGGTCAC ACGCCAACAA TAACTTGAAC CCGAAGCCCA CCATGGTTAC
TNGTCAACCCT 120
ACCTCTAGAA TCGAAGGTCG CGCTAGACCT TCGAGA 156

(2) INFORMATION FOR SEQ ID NO: 84:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 178 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

TCTCACTCCT CGAGGTATTC GGGTTTGTCC CCGCGGGACA ACGGTCCCGC
TTGTAGTCAG 60
GAGGCTACCT TGGAGGGTTG TGGTGCAGAG AGGCTGATGT CCACCCGTCG
CAAGGGCCGC 120
AACTCCCGCC CCGGGTGGAC GCTCTCTAGA ATCGAAGGTC GCGCTAGACC CTTCGAGA
178

(2) INFORMATION FOR SEQ ID NO: 85:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTCACTCCT CGAGCGTGGG GAATGATAAG ACTAGCAGGC CGGTTTCCTT
CTACGGGCGC 60
GTTAGTGATC TGTGGAACGC CAGCTTGATG CCGAAGCGTA CTCCAGCTC
GAAGCGCCAC 120
GATGATGGCT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 86:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 162 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCTCACTCCT CGAGTACTCC CCCAGTAGG GAGGCGTATA GTAGGCCCTA
TAGTGTCGAT 60
AGCGATTTCGG ATACGAAOCG CAAGCACAGC TCCCACAAOC GCGTNTGCG
GACGCGCAGC 120
CGOCCGAAC TAGAATCGA AGGTGCGGCT AGAOCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 87:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 159 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

TCTCACTCCT CGAGATGGCC TAGTGTGGGT TACAAGGGTA ATGGCAGTGA
CACTATTGAT 60
GTTACACAGCA ATGACGCCAG TACTAAGAGG TCCCTCATCT ATAACCACCG
CCGCCCCNTC 120
TTTCCCTCTA GAATCGAAGG TCGCGCTAGA CCTTCGAGA 159

(2) INFORMATION FOR SEQ ID NO: 88:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 162 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

TCTCACTCCT CGAGAACGTT TGAGAACGAC GGGCTGGGCG TCGGCCGGTC
TATTCAGAAG 60
AAGTCGGATA GGTGGTACGC CAGCCACAAC ATTCGTAGCC ATTTCGCGTC
CATGTCTCCC 120
GCTGGTAAGT CTAGAATCGA AGGTGCGGCT AGAOCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 89:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 160 base pairs
- (B) TYPE:** nucleic acid

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

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INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:
TCTCACTCCT CGAGCTATTG TCGGGTTAAG GGTGGTGGGG AGGGGGGGCA
TACGGATTCC 60
AATCTGGCTA GGTCGGGTTG TGGTAAGGTG GCCAGGACCA GCAGGCTTCA
GCATATCAAC 120
CCGCGCGCTA CCCCCCCTC CCGGTCTAGA ATCGAAGGTC 160
- (2) INFORMATION FOR SEQ ID NO: 90:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 162 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:
TCTCACTCCT CGAGTTGGAC TCGGTGGGGC AAGCACANTC ATGGGGGGTT
TGTGAACAAG 60
TCTCCCCCTG GGAAGAACGC CACGAGCCCC TACACCGACG CCCAGCTGCC
CAGTGATCAG 120
GGTCCTCCCT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162
- (2) INFORMATION FOR SEQ ID NO: 91:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:
TCTCACTCCT CGAGTCAGGT TGATTCGTTT CGTAATAGCT TTCGGTGGTA
TGAGCCGAGC 60
AGGGCTCTGT GCCATGOTTG TGGTAAGCGC GACACCTCCA CCACTCGTAT
CCACAATAGC 120
CCCAGCGACT CCTATCCTAC ACGCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177
- (2) INFORMATION FOR SEQ ID NO: 92:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 162 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:
TCTCACTCCT CGAGCTTTTT GCGGTTCCAG AGTCCGAGGT TCGAGGATTA
CAGTAGGACG 60
ATCTINTCGGT TGCGCAACGC CACGAACCCG AGTAATGTCT CCGATGCGCA
CAATAACCGG 120
GCCTTGGCCT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162
- (2) INFORMATION FOR SEQ ID NO: 93:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 162 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:
TCTCACTCCT CGAGGAGCAT CACCGACGGG GGCATCAATG AGGTGGACCT
GAGTAGTGTG 60
TCGAACGTTT TTGAGAACGC CAACTCGCAT AGGGCCTACA GGAAGCATCG
CCCGACCTTG 120
AAGCGTCCTT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162
- (2) INFORMATION FOR SEQ ID NO: 94:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:
TCTCACTCCT CGAGTTTCGAA GGTGAGCAGC CCGAGGGATC CGACGGTCCC
GCGGAAGGGC 60
GGCAATGTTG ATTATGGTTG TGGTCACAGG TCTTCGCCCC GGATGCCTAC
CTCGCTCTG 120
TCGTCGATCA CGAAGTGCTA CACTTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177
- (2) INFORMATION FOR SEQ ID NO: 95:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:
TCTCACTCCT CGAGAGCCAAG TANGCAGGGC GGCCGGGGTG TTGCCCCCTGA
GTTTGGGGCG 60

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

AGCGTTTGG GTNGTGGTTG TGGTAGCGCC ACTTATTACA CGAACTCCAC
CAGCTGCAAG 120
GATGCTATGG GCCACAATA CTCGTCTAGA ATCGAAGGTC GCGNTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 96:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

TCTCACTCCT CGAGATGGTG CGAGAAGCAC AAGTTTACGG CTGCGCOTTG
CAGCGCGGGG 60
GCGGGTTTTG AGAGGGANGC CAGCCGTCCG CCCAGCCTG CCCACCGGGA
TAATACCAAC 120
CGTAATGCNT NTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 97:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 162 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

TCTCACTCCT CGAGTTTTCA GGTGTACCCG GACCATGGTC TGGAGAGGCA
TGCTTTGGAC 60
GGGACGGGTC CGCTTTACGC CATGCCCGGC CGCTGGATTA GGGCGCGTCC
GCAGAACAGG 120
GACCGCCAGT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 98:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 159 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

TCTCACTCCT CGAGCAGGTG TACGGACAAC GAGCAGTGCC CCGATAACCGG
GANTAGGTCT 60
CGTTCCGTTA GTAACGCCAG GTACTTTTGG AGCAGGTTGC TCAAGACTCA
CGCCCCCAT 120
CGCCCTTCTA GAATCGAAGG TCOCGCTAGA CCTTCGAGA 159

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APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 99:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 162 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TCTCACTCCT CGAGTGCCAG GGATAGCGGG OCTGCGGAGG ATGGGTCCCG
CGCCGTCCGG 60
TTGAACGGGG TTGAGAACGC CAACACTAGG AAGTCCTCCC GCAGTAACCC
GCGGGGTAGG 120
CGCCATCCCT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 100:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 177 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

TCTCACTCCT CGAGTTCGCG CGATGCGGAG AAGTGTGCGG GCAGTCTGTT
GTGGTGGGGT 60
AGCAGAACA ACTCCGGTTG TGGTTCGCCC ACGAAGAAGC ATCTGAAGCA
CGCAATCGC 120
AGTCAGACCT CCTCTTCGTC CCACTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 101:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 162 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

TCTCACTCCT CGAGACCGAA GAACGTGGCC GATGCTTATT CGTCTCAGGA
CGGGGCGGCG 60
GCCGAGGAGA CGTCTCACGC CAGTAATGCC GCGCGGAAGT CCOCTAAGCA
CAAGCCCTTG 120
AGGCGGCCTT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 102:

(i) SEQUENCE CHARACTERISTICS:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(A) LENGTH: 162 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TCTCACTCCT CGAGAGGCAG TACGGGGACG GCCGGCGGCG AGCGTTCCGG
GGTGCTCAAC 60
CTGCACACCA GGGATAACGC CAGCGGCAGC GGTTCAAAC CGTGGTACCC
TTCGAATCGG 120
GGTCACAAGT CTAGAATCGA AGGTGCGCT AGAOCCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 103:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 162 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

TCTCACTCCT CGAGGTGGGG GTGGGAGAGG AGTCGTCCTG ACTACGATTC
TGATATGGAC 60
TTGGGGGCGA GGAGGTACGC CACCCGCACC CACCGCGCGC CCGCTGCGCT
CTTGAAGGCT 120
CCCCTGCCCT CTAGAATCGA AGGTGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 104:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

TCTCACTCCT CGAGGCACTG GAAGTGCAGG GGCTCTCAGG CTGCCTACGG
GGACAAGGAT 60
ATCGGGAGGT CCAGGGGTTG TGGTTCCATT ACAAAGAATA AACTAATCA
CGCCCATCCT 120
AGCCACGGCG CCGTTGCTAA GATCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 105:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 162 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

TCTCACTCCT CGAGCCGCGA GGAGGCGAAC TGGGACGGCT ATAAGAGGGA
GATGAGCCAC 60
CGGAGTCGCT TTGGGAAGC CACCCACCTG TCCCGCCCTC GCCGCCCCGC
TAACTCTGGT 120
GACCCTAACT CTAGAATCGA AGGTCGCGCT AGACCTTCGA GA 162

(2) INFORMATION FOR SEQ ID NO: 106:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 177 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

TCTCACTCNT CGAGAGAGTT CGCGGAGAGG AGOTTGTGGG GGTGTGATGA
CCTGAGTTGG 60
CGTCTCGACG CGGAGGGTTG TGGTCCCACT CCGAGCAATC GGGCCGTCAA
GCATCCGAAG 120
CCCCGCCAC GCTCCCCCGC ACTCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 107:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 177 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

TCTCACTCNT NGAGTGATCA CGCGTTGGG ACGAATCTGA GGTCTGACAA
TGCCAAGGAG 60
CCGGGTGATT ACAACTGTTG TGGTAACGGG AACTCTACCG GGCGAAAGGT
TTTAAACCGT 120
AGGCGCCCT CCGCATCCC CANTTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 108:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 177 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:
TCTCACTCCT CGAGGCATAT TTCTGAGTAT AGCTTTGCCA ATTCCCACTT
GATGGGTGGC 60
GAGTCCAAGC GGAAGGGTTG TGGTATTAAC GGCTCCTTTT CTCCCACTTG
TCCCCGCTCC 120
CCCACCCCAG CCTCCGCGC CACCTCTAGA ATCGAAGGTC GCGCTAGACC TTCGAGA
177

(2) INFORMATION FOR SEQ ID NO: 109:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 158 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

TCTCACTCCT CGAGCCGGGA GAGCGGQATG TGGGGTAGTT GGTGGCGTGG
TCACAGGTTG 60
AATTOCACGG GGGGTAACGC CAACATGAAT GCTAGTCTGC CCCCCGACCC
CCCTGTTTCC 120
ACTCGTCTA GAATCGAAGG TCGCGCTAGA CCTTCGAG 158

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 708 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

Met Gly Met Ser Lys Ser His Ser Phe Phe Gly Tyr Pro Leu Ser Ile
1 5 10 15
Phe Phe Ile Val Val Asn Glu Phe Cys Glu Arg Phe Ser Tyr Tyr Gly
20 25 30
Met Arg Ala Ile Leu Ile Leu Tyr Phe Thr Asn Phe Ile Ser Trp Asp
35 40 45
Asp Asn Leu Ser Thr Ala Ile Tyr His Thr Phe Val Ala Leu Cys Tyr
50 55 60
Leu Thr Pro Ile Leu Gly Ala Leu Ile Ala Asp Ser Trp Leu Gly Lys
65 70 75 80
Phe Lys Thr Ile Val Ser Leu Ser Ile Val Tyr Thr Ile Gly Gln Ala
85 90 95
Val Thr Ser Val Ser Ile Asn Asp Leu Thr Asp His Asn His Asp
100 105 110
Gly Thr Pro Asp Ser Leu Pro Val His Val Val Leu Ser Leu Ile Gly
115 120 125

UNITED STATES PATENT AND TRADEMARK OFFICE
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Leu Ala Leu Ile Ala Leu Gly Thr Gly Gly Ile Lys Pro Cys Val Ser
130 135 140
Ala Phe Gly Gly Asp Gln Phe Glu Glu Gly Gln Glu Lys Gln Arg Asn
145 150 155 160
Arg Phe Phe Ser Ile Phe Tyr Leu Ala Ile Asn Ala Gly Ser Leu Leu
165 170 175
Ser Thr Ile Ile Thr Pro Met Leu Arg Val Gln Gln Cys Gly Ile His
180 185 190
Ser Lys Gln Ala Cys Tyr Pro Leu Ala Phe Gly Val Pro Ala Ala Leu
195 200 205
Met Ala Val Ala Leu Ile Val Phe Val Leu Gly Ser Gly Met Tyr Lys
210 215 220
Lys Phe Lys Pro Gln Gly Asn Ile Met Gly Lys Val Ala Lys Cys Ile
225 230 235 240
Gly Phe Ala Ile Lys Asn Arg Phe Arg His Arg Ser Lys Ala Phe Pro
245 250 255
Lys Arg Glu His Trp Leu Asp Trp Ala Lys Glu Lys Tyr Asp Glu Arg
260 265 270
Leu Ile Ser Gln Ile Lys Met Val Thr Arg Val Met Phe Leu Tyr Ile
275 280 285
Pro Leu Pro Met Phe Trp Ala Leu Phe Asp Gln Gln Gly Ser Arg Trp
290 295 300
Thr Leu Gln Ala Thr Thr Met Ser Gly Lys Ile Gly Ala Leu Glu Ile
305 310 315 320
Gln Pro Asp Gln Met Gln Thr Val Asn Ala Ile Leu Ile Val Ile Met
325 330 335
Val Pro Ile Phe Asp Ala Val Leu Tyr Pro Leu Ile Ala Lys Cys Gly
340 345 350
Phe Asn Phe Thr Ser Leu Lys Lys Met Ala Val Gly Met Val Leu Ala
355 360 365
Ser Met Ala Phe Val Val Ala Ala Ile Val Gln Val Glu Ile Asp Lys
370 375 380
Thr Leu Pro Val Phe Pro Lys Gly Asn Glu Val Gln Ile Lys Val Leu
385 390 395 400
Asn Ile Gly Asn Asn Thr Met Asn Ile Ser Leu Pro Gly Glu Met Val
405 410 415
Thr Leu Gly Pro Met Ser Gln Thr Asn Ala Phe Met Thr Phe Asp Val
420 425 430
Asn Lys Leu Thr Arg Ile Asn Ile Ser Ser Pro Gly Ser Pro Val Thr
435 440 445
Ala Val Thr Asp Asp Phe Lys Gln Gly Gln Arg His Thr Leu Leu Val
450 455 460
Trp Ala Pro Asn His Tyr Gln Val Val Lys Asp Gly Leu Asn Gln Lys
465 470 475 480
Pro Glu Lys Gly Glu Asn Gly Ile Arg Phe Val Asn Thr Phe Asn Glu
485 490 495

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Leu Ile Thr Ile Thr Met Ser Gly Lys Val Tyr Ala Asn Ile Ser Ser
500 505 510
Tyr Asn Ala Ser Thr Tyr Gln Phe Phe Pro Ser Gly Ile Lys Gly Phe
515 520 525
Thr Ile Ser Ser Thr Glu Ile Pro Pro Gln Cys Gln Pro Asn Phe Asn
530 535 540
Thr Phe Tyr Leu Glu Phe Gly Ser Ala Tyr Thr Tyr Ile Val Gln Arg
545 550 555 560
Lys Asn Asp Ser Cys Pro Glu Val Lys Val Phe Glu Asp Ile Ser Ala
565 570 575
Asn Thr Val Asn Met Ala Leu Gln Ile Pro Gln Tyr Phe Leu Leu Thr
580 585 590
Cys Gly Glu Val Val Phe Ser Val Thr Gly Leu Glu Phe Ser Tyr Ser
595 600 605
Gln Ala Pro Ser Asn Met Lys Ser Val Leu Gln Ala Gly Trp Leu Leu
610 615 620
Thr Val Ala Val Gly Asn Ile Ile Val Leu Ile Val Ala Gly Ala Gly
625 630 635 640
Gln Phe Ser Lys Gln Trp Ala Glu Tyr Ile Leu Phe Ala Ala Leu Leu
645 650 655
Leu Val Val Cys Val Val Phe Ala Ile Met Ala Arg Phe Tyr Thr Tyr
660 665 670
Ile Asn Pro Ala Glu Ile Glu Ala Gln Phe Asp Glu Asp Glu Lys Lys
675 680 685
Asn Arg Leu Glu Lys Ser Asn Pro Tyr Phe Met Ser Gly Ala Asn Ser
690 695 700
Gln Lys Gln Met
705

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

TCCGGACTCT CATAAGCGCC GG

22

(2) INFORMATION FOR SEQ ID NO: 112:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

UNITED STATES PATENT AND TRADEMARK OFFICE -
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PATENT NO. : 7,053,177 B1
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:
ACAACGGGCC AGAAAGAGCG AG 22
- (2) INFORMATION FOR SEQ ID NO: 113:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:
ACACCACCCC AATCGGAGCT AC 22
- (2) INFORMATION FOR SEQ ID NO: 114:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:
TCAGAATCCG TGCCTGGCC AA 22
- (2) INFORMATION FOR SEQ ID NO: 115:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:
GCCCTATTCA TACCACCGGA GT 22
- (2) INFORMATION FOR SEQ ID NO: 116:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:
CATCAGTCCT ACCGCCGAAA AG 22
- (2) INFORMATION FOR SEQ ID NO: 117:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs

UNITED STATES PATENT AND TRADEMARK OFFICE
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:
CGTATAGCTA TTGTGAGCGA TG 22
- (2) INFORMATION FOR SEQ ID NO: 118:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:
ACGCGCGGAA CGAGCAGTAC CA 22
- (2) INFORMATION FOR SEQ ID NO: 119:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:
CCATAATGAT CCCGTCCT AT 22
- (2) INFORMATION FOR SEQ ID NO: 120:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:
AGACACCCCT TAGCCGTCGT AG 22
- (2) INFORMATION FOR SEQ ID NO: 121:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:
AGCTCCGTGA CCTTAGTCAT AA 22

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
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INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 122:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:
TGCACAGCTC AGGCGGCAC CA

22

(2) INFORMATION FOR SEQ ID NO: 123:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:
ACGGGTCATC AGCGCCGCAC CA

22

(2) INFORMATION FOR SEQ ID NO: 124:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:
TGTCACCCCC CTCCCCGGAC TT

22

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:
ACTCGCAATT ATTGGCGCTC GA

22

(2) INFORMATION FOR SEQ ID NO: 126:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:
GTCTTCTCAA CCTATCCTG CG 22
- (2) INFORMATION FOR SEQ ID NO: 127:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:
AAAGCCCCCT GCTAAACTCC CA 22
- (2) INFORMATION FOR SEQ ID NO: 128:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:
CTGCGTCTGC CACGTCGTCA TC 22
- (2) INFORMATION FOR SEQ ID NO: 129:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:
GTTAAAAGAG GGCAAGCTCG GA 22
- (2) INFORMATION FOR SEQ ID NO: 130:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:
CCGAGTTCTT GATGTCCTCC AT 22
- (2) INFORMATION FOR SEQ ID NO: 131:

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
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DATED : May 30, 2006
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:
TCCAATGCCT GTACCACGGA TG

22

(2) INFORMATION FOR SEQ ID NO: 132:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 132:
TCGCAACCGA TATCGTGCTT AT

22

(2) INFORMATION FOR SEQ ID NO: 133:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 133:
TGCATACACT GCTTGGAGCC CT

22

(2) INFORMATION FOR SEQ ID NO: 134:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:
GAAATCTCAC TAGTAGTCCG CC

22

(2) INFORMATION FOR SEQ ID NO: 135:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

UNITED STATES PATENT AND TRADEMARK OFFICE
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 135:**
GCGGGCAAGA CAGTCCAATT CC 22
- (2) **INFORMATION FOR SEQ ID NO: 136:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 136:**
GAGCTCCAAT TCCACGACGA CC 22
- (2) **INFORMATION FOR SEQ ID NO: 137:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 137:**
GGTTGCCATG CGTTCAAACT AC 22
- (2) **INFORMATION FOR SEQ ID NO: 138:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 138:**
TCCCGCGGGG ACAAACCCGA AT 22
- (2) **INFORMATION FOR SEQ ID NO: 139:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 139:**
CTGCTAGTCT TATCATTCCT CA 22
- (2) **INFORMATION FOR SEQ ID NO: 140:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs

UNITED STATES PATENT AND TRADEMARK OFFICE
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 140:
CTATCGACAC TATAGGCCT AC 22
- (2) INFORMATION FOR SEQ ID NO: 141:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 141:
TACCCTTGTA ACCCACACTA GG 22
- (2) INFORMATION FOR SEQ ID NO: 142:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 142:
TTCTTCTGAA TAGACCGGCC GA 22
- (2) INFORMATION FOR SEQ ID NO: 143:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 143:
CCAACCCT TAACCGACA AT 22
- (2) INFORMATION FOR SEQ ID NO: 144:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 144:
AGGGGGAGAC TTGTCACAA AC 22

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 145:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 145:

CGGCTCATAC CACCGAAAGC TA 22

(2) INFORMATION FOR SEQ ID NO: 146:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 146:

ATCGTCCTAC TGTAATCCTC GA 22

(2) INFORMATION FOR SEQ ID NO: 147:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 147:

GACACACTAC TCAGGTCCAC CT 22

(2) INFORMATION FOR SEQ ID NO: 148:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:

CCATAATCAA CATTGCCGCC CT 22

(2) INFORMATION FOR SEQ ID NO: 149:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 22 base pairs
- (B) TYPE:** nucleic acid
- (C) STRANDEDNESS:** single

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:
CAAAACGCTC GCCCCAACT CA 22
- (2) INFORMATION FOR SEQ ID NO: 150:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 150:
GTAAACTTGT GCTTCTCGCA CC 22
- (2) INFORMATION FOR SEQ ID NO: 151:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 151:
CCATGGTCCG GTACACCTG AA 22
- (2) INFORMATION FOR SEQ ID NO: 152:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 152:
GTTACTAACG GAACGAGACC TA 22
- (2) INFORMATION FOR SEQ ID NO: 153:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 153:
TGTTGGCGTT CTCAACCCCG TT 22
- (2) INFORMATION FOR SEQ ID NO: 154:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 154:
ACAACCGGAG TTGTTCTGCC TA 22
- (2) INFORMATION FOR SEQ ID NO: 155:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 155:
TAAGCATCGG CCACGTTCTT CG 22
- (2) INFORMATION FOR SEQ ID NO: 156:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 156:
TTATCCCTGG TGTGCAGGTT GA 22
- (2) INFORMATION FOR SEQ ID NO: 157:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 157:
TATCAGAATC GTAGTCGGAC GG 22
- (2) INFORMATION FOR SEQ ID NO: 158:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 158:**
CTTTGTAATG GAACCACAAC CC 22
- (2) **INFORMATION FOR SEQ ID NO: 159:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 159:**
CGGTGGCTCA TCTCCCTCTT AT 22
- (2) **INFORMATION FOR SEQ ID NO: 160:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 160:**
ATCAGACTGG CTGGGACCAC AA 22
- (2) **INFORMATION FOR SEQ ID NO: 161:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 161:**
CACAACCTCC TCTCCGOGAA CT 22
- (2) **INFORMATION FOR SEQ ID NO: 162:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs
(B) **TYPE:** nucleic acid
(C) **STRANDEDNESS:** single
(D) **TOPOLOGY:** linear
(ii) **MOLECULE TYPE:** DNA
(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 162:**
AGATTCGTCC CCAACGCGTG AT 22
- (2) **INFORMATION FOR SEQ ID NO: 163:**
(i) **SEQUENCE CHARACTERISTICS:**
(A) **LENGTH:** 22 base pairs

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 163:
GGGAATTTCGC AAAGCTATAC TC 22
- (2) INFORMATION FOR SEQ ID NO: 164:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 164:
CCCCGTGGAA TTCAACCTGT GA 22
- (2) INFORMATION FOR SEQ ID NO: 165:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 165:
GTCGTCTTTC CAGACGT 17
- (2) INFORMATION FOR SEQ ID NO: 166:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(ii) MOLECULE TYPE: DNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 166:
CTTGCA TGCC TGCAGGTCGA C 21
- (2) INFORMATION FOR SEQ ID NO: 167:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 167:
Arg Ile Ala Gly Leu Pro Trp Tyr Arg Cys Arg Thr Val Ala Phe Glu

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PATENT NO. : 7,053,177 B1
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

1 5 10 15
Thr Gly Met Gln Asn Thr Gln Leu Cys Ser Thr Ile Val Gln Leu Ser
 20 25 30
Phe Thr Pro Glu Glu
 35

(2) INFORMATION FOR SEQ ID NO: 168:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 44 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 168:

Arg Glu Phe Ala Glu Arg Leu Trp Gly Cys Asp Asp Leu Ser Trp
1 5 10 15
Arg Leu Asp Ala Glu Gly Cys Gly Pro Thr Pro Ser Asn Arg Ala Val
 20 25 30
Lys His Arg Lys Pro Arg Pro Arg Ser Pro Ala Leu
 35 40

(2) INFORMATION FOR SEQ ID NO: 169:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 41 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 169:

Ser Gly Ser His Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val Phe
1 5 10 15
Arg Glu Leu Arg Asp Arg Trp Tyr Ala Thr Ser His His Thr Arg Pro
 20 25 30
Thr Pro Gln Leu Pro Arg Gly Pro Asn
 35 40

(2) INFORMATION FOR SEQ ID NO: 170:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 170:

Ser Thr Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val Asp
1 5 10 15

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PATENT NO. : 7,053,177 B1
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Ser Asp Ser Asp
20

(2) INFORMATION FOR SEQ ID NO: 171:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 29 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 171:

Ser Thr Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val Asp
1 5 10 15
Ser Asp Ser Asp Thr Asn Ala Lys His Ser Ser His Asn
20 25

(2) INFORMATION FOR SEQ ID NO: 172:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 19 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 172:

Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg Ser
1 5 10 15
Arg Pro Asn

(2) INFORMATION FOR SEQ ID NO: 173:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 9 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 173:

Thr Asn Ala Lys His Ser Ser His Asn
1 5

(2) INFORMATION FOR SEQ ID NO: 174:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 14 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 174:**
Ser Ser His Asn Arg Arg Leu Arg Thr Arg Ser Arg Pro Asn
1 5 10

(2) **INFORMATION FOR SEQ ID NO: 175:**

(i) **SEQUENCE CHARACTERISTICS:**

(A) **LENGTH:** 10 amino acids
(B) **TYPE:** amino acid
(C) **STRANDEDNESS:** <Unknown>
(D) **TOPOLOGY:** unknown

(ii) **MOLECULE TYPE:** peptide

(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 175:**
Arg Arg Leu Arg Thr Arg Ser Arg Pro Asn
1 5 10

(2) **INFORMATION FOR SEQ ID NO: 176:**

(i) **SEQUENCE CHARACTERISTICS:**

(A) **LENGTH:** 708 amino acids
(B) **TYPE:** amino acid
(C) **STRANDEDNESS:** <Unknown>
(D) **TOPOLOGY:** unknown

(ii) **MOLECULE TYPE:** peptide

(xi) **SEQUENCE DESCRIPTION: SEQ ID NO: 176:**

Met Gly Met Ser Lys Ser His Ser Phe Phe Gly Tyr Pro Leu Ser Ile
1 5 10 15
Phe Phe Ile Val Val Asn Glu Phe Cys Glu Arg Phe Ser Tyr Tyr Gly
20 25 30
Met Arg Ala Ile Leu Ile Leu Tyr Phe Thr Asn Phe Ile Ser Trp Asp
35 40 45
Asp Asn Leu Ser Thr Ala Ile Tyr His Thr Phe Val Ala Leu Cys Tyr
50 55 60
Leu Thr Pro Ile Leu Gly Ala Leu Ile Ala Asp Ser Trp Leu Gly Lys
65 70 75 80
Phe Lys Thr Ile Val Ser Leu Ser Ile Val Tyr Thr Ile Gly Gln Ala
85 90 95
Val Thr Ser Val Ser Ile Asn Asp Leu Thr Asp His Asn His Asp
100 105 110
Gly Thr Pro Asp Ser Leu Pro Val His Val Val Leu Ser Leu Ile Gly
115 120 125
Leu Ala Leu Ile Ala Leu Gly Thr Gly Gly Ile Lys Pro Cys Val Ser
130 135 140
Ala Phe Gly Gly Asp Gln Phe Glu Glu Gly Gln Glu Lys Gln Arg Asn
145 150 155 160
Arg Phe Phe Ser Ile Phe Tyr Leu Ala Ile Asn Ala Gly Ser Leu Leu
165 170 175
Ser Thr Ile Ile Thr Pro Met Leu Arg Val Gln Gln Cys Gly Ile His

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

180 185 190
Ser Lys Gln Ala Cys Tyr Pro Leu Ala Phe Gly Val Pro Ala Ala Leu
195 200 205
Met Ala Val Ala Leu Ile Val Phe Val Leu Gly Ser Gly Met Tyr Lys
210 215 220
Lys Phe Lys Pro Gln Gly Asn Ile Met Gly Lys Val Ala Lys Cys Ile
225 230 235 240
Gly Phe Ala Ile Lys Asn Arg Phe Arg His Arg Ser Lys Ala Phe Pro
245 250 255
Lys Arg Glu His Trp Leu Asp Trp Ala Lys Glu Lys Tyr Asp Glu Arg
260 265 270
Leu Ile Ser Gln Ile Lys Met Val Thr Arg Val Met Phe Leu Tyr Ile
275 280 285
Pro Leu Pro Met Phe Trp Ala Leu Phe Asp Gln Gln Gly Ser Arg Trp
290 295 300
Thr Leu Gln Ala Thr Thr Met Ser Gly Lys Ile Gly Ala Leu Glu Ile
305 310 315 320
Gln Pro Asp Gln Met Gln Thr Val Asn Ala Ile Leu Ile Val Ile Met
325 330 335
Val Pro Ile Phe Asp Ala Val Leu Tyr Pro Leu Ile Ala Lys Cys Gly
340 345 350
Phe Asn Phe Thr Ser Leu Lys Lys Met Ala Val Gly Met Val Leu Ala
355 360 365
Ser Met Ala Phe Val Val Ala Ala Ile Val Gln Val Glu Ile Asp Lys
370 375 380
Thr Leu Pro Val Phe Pro Lys Gly Asn Glu Val Gln Ile Lys Val Leu
385 390 395 400
Asn Ile Gly Asn Asn Thr Met Asn Ile Ser Leu Pro Gly Glu Met Val
405 410 415
Thr Leu Gly Pro Met Ser Gln Thr Asn Ala Phe Met Thr Phe Asp Val
420 425 430
Asn Lys Leu Thr Arg Ile Asn Ile Ser Ser Pro Gly Ser Pro Val Thr
435 440 445
Ala Val Thr Asp Asp Phe Lys Gln Gly Gln Arg His Thr Leu Leu Val
450 455 460
Trp Ala Pro Asn His Tyr Gln Val Val Lys Asp Gly Leu Asn Gln Lys
465 470 475 480
Pro Glu Lys Gly Glu Asn Gly Ile Arg Phe Val Asn Thr Phe Asn Glu
485 490 495
Leu Ile Thr Ile Thr Met Ser Gly Lys Val Tyr Ala Asn Ile Ser Ser
500 505 510
Tyr Asn Ala Ser Thr Tyr Gln Phe Phe Pro Ser Gly Ile Lys Gly Phe
515 520 525
Thr Ile Ser Ser Thr Glu Ile Pro Pro Gln Cys Gln Pro Asn Phe Asn
530 535 540
Thr Phe Tyr Leu Glu Phe Gly Ser Ala Tyr Thr Tyr Ile Val Gln Arg

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

545 550 555 560
Lys Asn Asp Ser Cys Pro Glu Val Lys Val Phe Glu Asp Ile Ser Ala
565 570 575
Asn Thr Val Asn Met Ala Leu Gln Ile Pro Gln Tyr Phe Leu Leu Thr
580 585 590
Cys Gly Glu Val Val Phe Ser Val Thr Gly Leu Glu Phe Ser Tyr Ser
595 600 605
Gln Ala Pro Ser Asn Met Lys Ser Val Leu Gln Ala Gly Trp Leu Leu
610 615 620
Thr Val Ala Val Gly Asn Ile Ile Val Leu Ile Val Ala Gly Ala Gly
625 630 635 640
Gln Phe Ser Lys Gln Trp Ala Glu Tyr Ile Leu Phe Ala Ala Leu Leu
645 650 655
Leu Val Val Cys Val Val Phe Ala Ile Met Ala Arg Phe Tyr Thr Tyr
660 665 670
Ile Asn Pro Ala Glu Ile Glu Ala Gln Phe Asp Glu Asp Glu Lys Lys
675 680 685
Asn Arg Leu Glu Lys Ser Asn Pro Tyr Phe Met Ser Gly Ala Asn Ser
690 695 700
Gln Lys Gln Met
705

(2) INFORMATION FOR SEQ ID NO: 177:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3345 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
(B) LOCATION: 88...2583
(D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 177:

GAATTCGTC TCGACCACTG AATGGAAGAA AAGGACTTTT AACCAACCATT
TTGTGACTTA 60
CAGAAAGGAA TTTGAATAAA GAAAACT ATG ATA CTT CAG GCC CAT CTT CAC TCC
114

Met Ile Leu Gln Ala His Leu His Ser

1 5

CTG TGT CTT CTT ATG CTT TAT TTG GCA ACT GGA TAT GGC CAA GAG GGG 162

Leu Cys Leu Leu Met Leu Tyr Leu Ala Thr Gly Tyr Gly Gln Glu Gly

10 15 20 25

AAG TTT AGT GGA CCC CTG AAA CCC ATG ACA TTT TCT ATT TAT GAA GGC 210

Lys Phe Ser Gly Pro Leu Lys Pro Met Thr Phe Ser Ile Tyr Glu Gly

30 35 40

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

CAA GAA CCG AGT CAA ATT ATA TTC CAG TTT AAG GCC AAT OCT CCT GCT 258
Gln Glu Pro Ser Gln Ile Ile Phe Gln Phe Lys Ala Asn Pro Pro Ala
45 50 55
GTG ACT TTT GAA CTA ACT GGG GAG ACA GAC AAC ATA TTT GTG ATA GAA 306
Val Thr Phe Glu Leu Thr Gly Glu Thr Asp Asn Ile Phe Val Ile Glu
60 65 70
CGG GAG GGA CTT CTG TAT TAC AAC AGA GCC TTG GAC AGG GAA ACA AGA 354
Arg Glu Gly Leu Leu Tyr Tyr Asn Arg Ala Leu Asp Arg Glu Thr Arg
75 80 85
TCT ACT CAC AAT CTC CAG GTT GCA GCC CTG GAC GCT AAT GGA ATT ATA 402
Ser Thr His Asn Leu Gln Val Ala Ala Leu Asp Ala Asn Gly Ile Ile
90 95 100 105
GTG GAG GGT CCA GTC CCT ATC ACC ATA GAA GTG AAG GAC ATC AAC GAC 450
Val Glu Gly Pro Val Pro Ile Thr Ile Glu Val Lys Asp Ile Asn Asp
110 115 120
AAT CGA CCC ACG TTT CTC CAG TCA AAG TAC GAA GGC TCA GTA AGG CAG 498
Asn Arg Pro Thr Phe Leu Gln Ser Lys Tyr Glu Gly Ser Val Arg Gln
125 130 135
AAC TCT CGC CCA GGA AAG CCC TTC TTG TAT GTC AAT GCC ACA GAC CTG 546
Asn Ser Arg Pro Gly Lys Pro Phe Leu Tyr Val Asn Ala Thr Asp Leu
140 145 150
GAT GAT CCG GCC ACT CCC AAT GGC CAG CTT TAT TAC CAG ATT GTC ATC 594
Asp Asp Pro Ala Thr Pro Asn Gly Gln Leu Tyr Tyr Gln Ile Val Ile
155 160 165
CAG CTT CCC ATG ATC AAC AAT GTC ATG TAC TTT CAG ATC AAC AAC AAA 642
Gln Leu Pro Met Ile Asn Asn Val Met Tyr Phe Gln Ile Asn Asn Lys
170 175 180 185
ACG GGA GCC ATC TCT CTT ACC CGA GAG GGA TCT CAG GAA TTG AAT CCT 690
Thr Gly Ala Ile Ser Leu Thr Arg Glu Gly Ser Gln Glu Leu Asn Pro
190 195 200
GCT AAG AAT CCT TCC TAT AAT CTG GTG ATC TCA GTG AAG GAC ATG GGA 738
Ala Lys Asn Pro Ser Tyr Asn Leu Val Ile Ser Val Lys Asp Met Gly
205 210 215
GGC CAG AGT GAG AAT TCC TTC AGT GAT ACC ACA TCT GTG GAT ATC ATA 786
Gly Gln Ser Glu Asn Ser Phe Ser Asp Thr Thr Ser Val Asp Ile Ile
220 225 230
GTG ACA GAG AAT ATT TGG AAA GCA CCA AAA CCT GTG GAG ATG GTG GAA 834
Val Thr Glu Asn Ile Trp Lys Ala Pro Lys Pro Val Glu Met Val Glu
235 240 245
AAC TCA ACT GAT CCT CAC CCC ATC AAA ATC ACT CAG GTG CGG TGG AAT 882
Asn Ser Thr Asp Pro His Pro Ile Lys Ile Thr Gln Val Arg Trp Asn
250 255 260 265
GAT CCC GGT GCA CAA TAT TCC TTA GTT GAC AAA GAG AAG CTG CCA AGA 930
Asp Pro Gly Ala Gln Tyr Ser Leu Val Asp Lys Glu Lys Leu Pro Arg
270 275 280
TTC CCA TTT TCA ATT GAC CAG GAA GGA GAT ATT TAC GTG ACT CAG CCC 978

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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Phe Pro Phe Ser Ile Asp Gln Glu Gly Asp Ile Tyr Val Thr Gln Pro
285 290 295
TTG GAC CGA GAA GAA AAG GAT GCA TAT GTT TTT TAT GCA GTT GCA AAG 1026
Leu Asp Arg Glu Glu Lys Asp Ala Tyr Val Phe Tyr Ala Val Ala Lys
300 305 310
GAT GAG TAC GGA AAA CCA CTT TCA TAT CCG CTG GAA ATT CAT GTA AAA 1074
Asp Glu Tyr Gly Lys Pro Leu Ser Tyr Pro Leu Glu Ile His Val Lys
315 320 325
GTT AAA GAT ATT AAT GAT AAT CCA CCT ACA TGT CCG TCA CCA GTA ACC 1122
Val Lys Asp Ile Asn Asp Asn Pro Pro Thr Cys Pro Ser Pro Val Thr
330 335 340 345
GTA TTT GAG GTC CAG GAG AAT GAA CGA CTG GGT AAC AGT ATC GGG ACC 1170
Val Phe Glu Val Gln Glu Asn Glu Arg Leu Gly Asn Ser Ile Gly Thr
350 355 360
CTT ACT GCA CAT GAC AGG GAT GAA GAA AAT ACT GCC AAC AGT TTT CTA 1218
Leu Thr Ala His Asp Arg Asp Glu Glu Asn Thr Ala Asn Ser Phe Leu
365 370 375
AAC TAC AGG ATT GTG GAG CAA ACT CCC AAA CTT CCC ATG GAT GGA CTC 1266
Asn Tyr Arg Ile Val Glu Gln Thr Pro Lys Leu Pro Met Asp Gly Leu
380 385 390
TTC CTA ATC CAA ACC TAT GCT GGA ATG TTA CAG TTA GCT AAA CAG TCC 1314
Phe Leu Ile Gln Thr Tyr Ala Gly Met Leu Gln Leu Ala Lys Gln Ser
395 400 405
TTG AAG AAG CAA GAT ACT CCT CAG TAC AAC TTA ACG ATA GAG GTG TCT 1362
Leu Lys Lys Gln Asp Thr Pro Gln Tyr Asn Leu Thr Ile Glu Val Ser
410 415 420 425
GAC AAA GAT TTC AAG ACC CTT TGT TTT GTG CAA ATC AAC GTT ATT GAT 1410
Asp Lys Asp Phe Lys Thr Leu Cys Phe Val Gln Ile Asn Val Ile Asp
430 435 440
ATC AAT GAT CAG ATC CCC ATC TTT GAA AAA TCA GAT TAT GGA AAC CTG 1458
Ile Asn Asp Gln Ile Pro Ile Phe Glu Lys Ser Asp Tyr Gly Asn Leu
445 450 455
ACT CTT GCT GAA GAC ACA AAC ATT GGG TCC ACC ATC TTA ACC ATC CAG 1506
Thr Leu Ala Glu Asp Thr Asn Ile Gly Ser Thr Ile Leu Thr Ile Gln
460 465 470
GCC ACT GAT GCT GAT GAG CCA TTT ACT GGG AGT TCT AAA ATT CTG TAT 1554
Ala Thr Asp Ala Asp Glu Pro Phe Thr Gly Ser Ser Lys Ile Leu Tyr
475 480 485
CAT ATC ATA AAG GGA GAC AGT GAG GGA CGC CTG GGG GTT GAC ACA GAT 1602
His Ile Ile Lys Gly Asp Ser Glu Gly Arg Leu Gly Val Asp Thr Asp
490 495 500 505
CCC CAT ACC AAC ACC GGA TAT GTC ATA ATT AAA AAG CCT CTT GAT TTT 1650
Pro His Thr Asn Thr Gly Tyr Val Ile Ile Lys Lys Pro Leu Asp Phe
510 515 520
GAA ACA GCA GCT GTT TCC AAC ATT GTG TTC AAA GCA GAA AAT CCT GAG 1698
Glu Thr Ala Ala Val Ser Asn Ile Val Phe Lys Ala Glu Asn Pro Glu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 48 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

525 530 535
CCT CTA GTG TTT GGT GTG AAG TAC AAT GCA AGT TCT TTT GCC AAG TTC 1746
Pro Leu Val Phe Gly Val Lys Tyr Asn Ala Ser Ser Phe Ala Lys Phe
540 545 550
ACG CTT ATT GTG ACA GAT GTG AAT GAA GCA OCT CAA TTT TCC CAA CAC 1794
Thr Leu Ile Val Thr Asp Val Asn Glu Ala Pro Gln Phe Ser Gln His
555 560 565
GTA TTC CAA GCG AAA GTC AGT GAG GAT GTA GCT ATA GGC ACT AAA GTG 1842
Val Phe Gln Ala Lys Val Ser Glu Asp Val Ala Ile Gly Thr Lys Val
570 575 580 585
GGC AAT GTG ACT GCC AAG GAT CCA GAA GGT CTG GAC ATA AGC TAT TCA 1890
Gly Asn Val Thr Ala Lys Asp Pro Glu Gly Leu Asp Ile Ser Tyr Ser
590 595 600
CTG AGG GGA GAC ACA AGA GGT TGG CTT AAA ATT GAC CAC GTG ACT GGT 1938
Leu Arg Gly Asp Thr Arg Gly Trp Leu Lys Ile Asp His Val Thr Gly
605 610 615
GAG ATC TTT AGT GTG GCT CCA TTG GAC AGA GAA GCC GGA AGT CCA TAT 1986
Glu Ile Phe Ser Val Ala Pro Leu Asp Arg Glu Ala Gly Ser Pro Tyr
620 625 630
CGG GTA CAA GTG GTG GCC ACA GAA GTA GGG GGG TCT TCC TTA AGC TCT 2034
Arg Val Gln Val Val Ala Thr Glu Val Gly Gly Ser Ser Leu Ser Ser
635 640 645
GTG TCA GAG TTC CAC CTG ATC CTT ATG GAT GTG AAT GAC AAC CCT CCC 2082
Val Ser Glu Phe His Leu Ile Leu Met Asp Val Asn Asp Asn Pro Pro
650 655 660 665
AGG CTA GCC AAG GAC TAC ACG GGC TTG TTC TTC TGC CAT CCC CTC AGT 2130
Arg Leu Ala Lys Asp Tyr Thr Gly Leu Phe Phe Cys His Pro Leu Ser
670 675 680
GCA CCT GGA AGT CTC ATT TTC GAG GCT ACT GAT GAT GAT CAG CAC TTA 2178
Ala Pro Gly Ser Leu Ile Phe Glu Ala Thr Asp Asp Asp Gln His Leu
685 690 695
TTT CGG GGT CCC CAT TTT ACA TTT TCC CTC GGC AGT GGA AGC TTA CAA 2226
Phe Arg Gly Pro His Phe Thr Phe Ser Leu Gly Ser Gly Ser Leu Gln
700 705 710
AAC GAC TGG GAA GTT TCC AAA ATC AAT GGT ACT CAT GCC CGA CTG TCT 2274
Asn Asp Trp Glu Val Ser Lys Ile Asn Gly Thr His Ala Arg Leu Ser
715 720 725
ACC AGG CAC ACA GAC TTT GAG GAG AGG GCG TAT GTC GTC TTG ATC CGC 2322
Thr Arg His Thr Asp Phe Glu Glu Arg Ala Tyr Val Val Leu Ile Arg
730 735 740 745
ATC AAT GAT GGG GGT CGG CCA CCC TTG GAA GGC ATT GTT TCT TTA CCA 2370
Ile Asn Asp Gly Gly Arg Pro Pro Leu Glu Gly Ile Val Ser Leu Pro
750 755 760
GTT ACA TTC TGC AGT TGT GTG GAA GGA AGT TGT TTC CGG CCA GCA GGT 2418
Val Thr Phe Cys Ser Cys Val Glu Gly Ser Cys Phe Arg Pro Ala Gly
765 770 775

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 49 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

CAC CAG ACT GGG ATA CCC ACT GTG GGC ATG GCA GTT GGT ATA CTG CTG 2466
His Gln Thr Gly Ile Pro Thr Val Gly Met Ala Val Gly Ile Leu Leu
780 785 790
ACC ACC CTT CTG GTG ATT GGT ATA ATT TTA GCA GTT GTG TTT ATC CGC 2514
Thr Thr Leu Leu Val Ile Gly Ile Ile Leu Ala Val Val Phe Ile Arg
795 800 805
ATA AAG AAG GAT AAA GGC AAA GAT AAT GTT GAA AGT GCT CAA GCA TCT 2562
Ile Lys Lys Asp Lys Gly Lys Asp Asn Val Glu Ser Ala Gln Ala Ser
810 815 820 825
GAA GTC AAA CCT CTG AGA AGC TGAATTTGAA AAGGAATGTT TGAATTTATA TAGC
2617
Glu Val Lys Pro Leu Arg Ser
830
AAGTGCTATT TCAGCAACAA CCATCTCATC CTATTACTTT TCATCTAACG
TGCATTATAA 2677
TTTTTTAAAC AGATATTCCC TCTTGTCCTT TAATATTTGC TAAATATTTC TTTTTTGAGG
2737
TGGAGTCTTG CTCTGTGCC CAGGCTGGAG TACAGTGGTG TGATCCCAGC
TCACTGCAAC 2797
CTCGGCTCC TGGGTTACA TGATTCTCCT GCCTCAGCTT CCTAAGTAGC
TGGGTTTACA 2857
GGCACCCACC ACCATGCCCA GCTAATTTTT GTATTTTTAA TAGAGACGGG
GTTTGGCCAT 2917
TTGGCCAGGC TGGTCTTGAA CTCCTGACGT CAAGTGATCT GCCTGCCTTG
GTCTCCCAAT 2977
ACAGGCATGA ACCACTGCAC CCACCTACTT AGATATTTCA TGTGCTATAG
ACATTAGAGA 3037
GATTTTTCAT TTTTCCATGA CATTTTTCCT CTCTGCAAAT GGCTTAGCTA CTGTGTGTTT
3097
TCCCTTTTGG GGCAAGACAG ACTCATTAAA TATTCTGTAC ATTTTTTCTT
TATCAAGGAG 3157
ATATATCAGT GTTGCTCAT AGAACTGCCT GGATTCCATT TATGTTTTTT CTGATTCCAT
3217
CCTGTGTCCC CTTATCCTT GACTCCTTTG GTATTTCACT GAATTTCAAA CATTGTGTCAG
3277
AGAAGAAAAA AGTGAGGACT CAGGAAAAAT AAATAAATAA AAGAACAGCC
TTTGCGGCC 3337
GCGAATTC 3345

(2) INFORMATION FOR SEQ ID NO: 178:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 832 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 50 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 178:

Met Ile Leu Gln Ala His Leu His Ser Leu Cys Leu Met Leu Tyr
1 5 10 15
Leu Ala Thr Gly Tyr Gly Gln Glu Gly Lys Phe Ser Gly Pro Leu Lys
20 25 30
Pro Met Thr Phe Ser Ile Tyr Glu Gly Gln Glu Pro Ser Gln Ile Ile
35 40 45
Phe Gln Phe Lys Ala Asn Pro Pro Ala Val Thr Phe Glu Leu Thr Gly
50 55 60
Glu Thr Asp Asn Ile Phe Val Ile Glu Arg Glu Gly Leu Leu Tyr Tyr
65 70 75 80
Asn Arg Ala Leu Asp Arg Glu Thr Arg Ser Thr His Asn Leu Gln Val
85 90 95
Ala Ala Leu Asp Ala Asn Gly Ile Ile Val Glu Gly Pro Val Pro Ile
100 105 110
Thr Ile Glu Val Lys Asp Ile Asn Asp Asn Arg Pro Thr Phe Leu Gln
115 120 125
Ser Lys Tyr Glu Gly Ser Val Arg Gln Asn Ser Arg Pro Gly Lys Pro
130 135 140
Phe Leu Tyr Val Asn Ala Thr Asp Leu Asp Asp Pro Ala Thr Pro Asn
145 150 155 160
Gly Gln Leu Tyr Tyr Gln Ile Val Ile Gln Leu Pro Met Ile Asn Asn
165 170 175
Val Met Tyr Phe Gln Ile Asn Asn Lys Thr Gly Ala Ile Ser Leu Thr
180 185 190
Arg Glu Gly Ser Gln Glu Leu Asn Pro Ala Lys Asn Pro Ser Tyr Asn
195 200 205
Leu Val Ile Ser Val Lys Asp Met Gly Gly Gln Ser Glu Asn Ser Phe
210 215 220
Ser Asp Thr Thr Ser Val Asp Ile Ile Val Thr Glu Asn Ile Trp Lys
225 230 235 240
Ala Pro Lys Pro Val Glu Met Val Glu Asn Ser Thr Asp Pro His Pro
245 250 255
Ile Lys Ile Thr Gln Val Arg Trp Asn Asp Pro Gly Ala Gln Tyr Ser
260 265 270
Leu Val Asp Lys Glu Lys Leu Pro Arg Phe Pro Phe Ser Ile Asp Gln
275 280 285
Glu Gly Asp Ile Tyr Val Thr Gln Pro Leu Asp Arg Glu Glu Lys Asp
290 295 300
Ala Tyr Val Phe Tyr Ala Val Ala Lys Asp Glu Tyr Gly Lys Pro Leu
305 310 315 320
Ser Tyr Pro Leu Glu Ile His Val Lys Val Lys Asp Ile Asn Asp Asn
325 330 335
Pro Pro Thr Cys Pro Ser Pro Val Thr Val Phe Glu Val Gln Glu Asn
340 345 350
Glu Arg Leu Gly Asn Ser Ile Gly Thr Leu Thr Ala His Asp Arg Asp

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 51 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

355 360 365
Glu Glu Asn Thr Ala Asn Ser Phe Leu Asn Tyr Arg Ile Val Glu Gln
370 375 380
Thr Pro Lys Leu Pro Met Asp Gly Leu Phe Leu Ile Gln Thr Tyr Ala
385 390 395 400
Gly Met Leu Gln Leu Ala Lys Gln Ser Leu Lys Lys Gln Asp Thr Pro
405 410 415
Gln Tyr Asn Leu Thr Ile Glu Val Ser Asp Lys Asp Phe Lys Thr Leu
420 425 430
Cys Phe Val Gln Ile Asn Val Ile Asp Ile Asn Asp Gln Ile Pro Ile
435 440 445
Phe Glu Lys Ser Asp Tyr Gly Asn Leu Thr Leu Ala Glu Asp Thr Asn
450 455 460
Ile Gly Ser Thr Ile Leu Thr Ile Gln Ala Thr Asp Ala Asp Glu Pro
465 470 475 480
Phe Thr Gly Ser Ser Lys Ile Leu Tyr His Ile Ile Lys Gly Asp Ser
485 490 495
Glu Gly Arg Leu Gly Val Asp Thr Asp Pro His Thr Asn Thr Gly Tyr
500 505 510
Val Ile Ile Lys Lys Pro Leu Asp Phe Glu Thr Ala Ala Val Ser Asn
515 520 525
Ile Val Phe Lys Ala Glu Asn Pro Glu Pro Leu Val Phe Gly Val Lys
530 535 540
Tyr Asn Ala Ser Ser Phe Ala Lys Phe Thr Leu Ile Val Thr Asp Val
545 550 555 560
Asn Glu Ala Pro Gln Phe Ser Gln His Val Phe Gln Ala Lys Val Ser
565 570 575
Glu Asp Val Ala Ile Gly Thr Lys Val Gly Asn Val Thr Ala Lys Asp
580 585 590
Pro Glu Gly Leu Asp Ile Ser Tyr Ser Leu Arg Gly Asp Thr Arg Gly
595 600 605
Trp Leu Lys Ile Asp His Val Thr Gly Glu Ile Phe Ser Val Ala Pro
610 615 620
Leu Asp Arg Glu Ala Gly Ser Pro Tyr Arg Val Gln Val Val Ala Thr
625 630 635 640
Glu Val Gly Gly Ser Ser Leu Ser Ser Val Ser Glu Phe His Leu Ile
645 650 655
Leu Met Asp Val Asn Asp Asn Pro Pro Arg Leu Ala Lys Asp Tyr Thr
660 665 670
Gly Leu Phe Phe Cys His Pro Leu Ser Ala Pro Gly Ser Leu Ile Phe
675 680 685
Glu Ala Thr Asp Asp Asp Gln His Leu Phe Arg Gly Pro His Phe Thr
690 695 700
Phe Ser Leu Gly Ser Gly Ser Leu Gln Asn Asp Trp Glu Val Ser Lys
705 710 715 720
Ile Asn Gly Thr His Ala Arg Leu Ser Thr Arg His Thr Asp Phe Glu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 52 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

725 730 735
Glu Arg Ala Tyr Val Val Leu Ile Arg Ile Asn Asp Gly Gly Arg Pro
740 745 750
Pro Leu Glu Gly Ile Val Ser Leu Pro Val Thr Phe Cys Ser Cys Val
755 760 765
Glu Gly Ser Cys Phe Arg Pro Ala Gly His Gln Thr Gly Ile Pro Thr
770 775 780
Val Gly Met Ala Val Gly Ile Leu Leu Thr Thr Leu Leu Val Ile Gly
785 790 795 800
Ile Ile Leu Ala Val Val Phe Ile Arg Ile Lys Lys Asp Lys Gly Lys
805 810 815
Asp Asn Val Glu Ser Ala Gln Ala Ser Glu Val Lys Pro Leu Arg Ser
820 825 830

(2) INFORMATION FOR SEQ ID NO: 179:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1827 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 179:

Met Ala Arg Lys Lys Phe Ser Gly Leu Glu Ile Ser Leu Ile Val Leu
1 5 10 15
Phe Val Ile Val Thr Ile Ile Ala Ile Ala Leu Ile Val Val Leu Ala
20 25 30
Thr Lys Thr Pro Ala Val Asp Glu Ile Ser Asp Ser Thr Ser Thr Pro
35 40 45
Ala Thr Thr Arg Val Thr Thr Asn Pro Ser Asp Ser Gly Lys Cys Pro
50 55 60
Asn Val Leu Asn Asp Pro Val Asn Val Arg Ile Asn Cys Ile Pro Glu
65 70 75 80
Gln Phe Pro Thr Glu Gly Ile Cys Ala Gln Arg Gly Cys Cys Trp Arg
85 90 95
Pro Trp Asn Asp Ser Leu Ile Pro Trp Cys Phe Phe Val Asp Asn His
100 105 110
Gly Tyr Asn Val Gln Asp Met Thr Thr Thr Ser Ile Gly Val Glu Ala
115 120 125
Lys Leu Asn Arg Ile Pro Ser Pro Thr Leu Phe Gly Asn Asp Ile Asn
130 135 140
Ser Val Leu Phe Thr Thr Gln Asn Gln Thr Pro Asn Arg Phe Arg Phe
145 150 155 160
Lys Ile Thr Asp Pro Asn Asn Arg Arg Tyr Glu Val Pro His Gln Tyr
165 170 175
Val Lys Glu Phe Thr Gly Pro Thr Val Ser Asp Thr Leu Tyr Asp Val
180 185 190

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 53 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Lys Val Ala Gln Asn Pro Phe Ser Ile Gln Val Ile Arg Lys Ser Asn
195 200 205
Gly Lys Thr Leu Phe Asp Thr Ser Ile Gly Pro Leu Val Tyr Ser Asp
210 215 220
Gln Tyr Leu Gln Ile Ser Ala Arg Leu Pro Ser Asp Tyr Ile Tyr Gly
225 230 235 240
Ile Gly Glu Gln Val His Lys Arg Phe Arg His Asp Leu Ser Trp Lys
245 250 255
Thr Trp Pro Ile Phe Thr Arg Asp Gln Leu Pro Gly Asp Asn Asn Asn
260 265 270
Asn Leu Tyr Gly His Gln Thr Phe Phe Met Cys Ile Glu Asp Thr Ser
275 280 285
Gly Lys Ser Phe Gly Val Phe Leu Met Asn Ser Asn Ala Met Glu Ile
290 295 300
Phe Ile Gln Pro Thr Pro Ile Val Thr Tyr Arg Val Thr Gly Gly Ile
305 310 315 320
Leu Asp Phe Tyr Ile Leu Leu Gly Asp Thr Pro Glu Gln Val Val Gln
325 330 335
Gln Tyr Gln Gln Leu Val Gly Leu Pro Ala Met Pro Ala Tyr Trp Asn
340 345 350
Leu Gly Phe Gln Leu Ser Arg Trp Asn Tyr Lys Ser Leu Asp Val Val
355 360 365
Lys Glu Val Val Arg Arg Asn Arg Glu Ala Gly Ile Pro Phe Asp Thr
370 375 380
Gln Val Thr Asp Ile Asp Tyr Met Glu Asp Lys Lys Asp Phe Thr Tyr
385 390 395 400
Asp Gln Val Ala Phe Asn Gly Leu Pro Gln Phe Val Gln Asp Leu His
405 410 415
Asp His Gly Gln Lys Tyr Val Ile Ile Leu Asp Pro Ala Ile Ser Ile
420 425 430
Gly Arg Arg Ala Asn Gly Thr Thr Tyr Ala Thr Tyr Glu Arg Gly Asn
435 440 445
Thr Gln His Val Trp Ile Asn Glu Ser Asp Gly Ser Thr Pro Ile Ile
450 455 460
Gly Glu Val Trp Pro Gly Leu Thr Val Tyr Pro Asp Phe Thr Asn Pro
465 470 475 480
Asn Cys Ile Asp Trp Trp Ala Asn Glu Cys Ser Ile Phe His Gln Glu
485 490 495
Val Gln Tyr Asp Gly Leu Trp Ile Asp Met Asn Glu Val Ser Ser Phe
500 505 510
Ile Gln Gly Ser Thr Lys Gly Cys Asn Val Asn Lys Leu Asn Tyr Pro
515 520 525
Pro Phe Thr Pro Asp Ile Leu Asp Lys Leu Met Tyr Ser Lys Thr Ile
530 535 540
Cys Met Asp Ala Val Gln Asn Trp Gly Lys Gln Tyr Asp Val His Ser
545 550 555 560

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 54 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Leu Tyr Gly Tyr Ser Met Ala Ile Ala Thr Glu Gln Ala Val Gln Lys
565 570 575
Val Phe Pro Asn Lys Arg Ser Phe Ile Leu Thr Arg Ser Thr Phe Ala
580 585 590
Gly Ser Gly Arg His Ala Ala His Trp Leu Gly Asp Asn Thr Ala Ser
595 600 605
Trp Glu Gln Met Glu Trp Ser Ile Thr Gly Met Leu Glu Phe Ser Leu
610 615 620
Phe Gly Ile Pro Leu Val Gly Ala Asp Ile Cys Gly Phe Val Ala Glu
625 630 635 640
Thr Thr Glu Glu Leu Cys Arg Arg Trp Met Gln Leu Gly Ala Phe Tyr
645 650 655
Pro Phe Ser Arg Asn His Asn Ser Asp Gly Tyr Glu His Gln Asp Pro
660 665 670
Ala Phe Phe Gly Gln Asn Ser Leu Leu Val Lys Ser Ser Arg Gln Tyr
675 680 685
Leu Thr Ile Arg Tyr Thr Leu Leu Pro Phe Leu Tyr Thr Leu Phe Tyr
690 695 700
Lys Ala His Val Phe Gly Glu Thr Val Ala Arg Pro Val Leu His Glu
705 710 715 720
Phe Tyr Glu Asp Thr Asn Ser Trp Ile Glu Asp Thr Glu Phe Leu Trp
725 730 735
Gly Pro Ala Leu Leu Ile Thr Pro Val Leu Lys Gln Gly Ala Asp Thr
740 745 750
Val Ser Ala Tyr Ile Pro Asp Ala Ile Trp Tyr Asp Tyr Glu Ser Gly
755 760 765
Ala Lys Arg Pro Trp Arg Lys Gln Arg Val Asp Met Tyr Leu Pro Ala
770 775 780
Asp Lys Ile Gly Leu His Leu Arg Gly Gly Tyr Ile Ile Pro Ile Gln
785 790 795 800
Glu Pro Asp Val Thr Thr Thr Ala Ser Arg Lys Asn Pro Leu Gly Leu
805 810 815
Ile Val Ala Leu Gly Glu Asn Asn Thr Ala Lys Gly Asp Phe Phe Trp
820 825 830
Asp Asp Gly Glu Thr Lys Asp Thr Ile Gln Asn Gly Asn Tyr Ile Leu
835 840 845
Tyr Thr Phe Ser Val Ser Asn Asn Thr Leu Asp Ile Val Cys Thr His
850 855 860
Ser Ser Tyr Gln Glu Gly Thr Thr Leu Ala Phe Gln Thr Val Lys Ile
865 870 875 880
Leu Gly Leu Thr Asp Ser Val Thr Glu Val Arg Val Ala Glu Asn Asn
885 890 895
Gln Pro Met Asn Ala His Ser Asn Phe Thr Tyr Asp Ala Ser Asn Gln
900 905 910
Val Leu Leu Ile Ala Asp Leu Lys Leu Asn Leu Gly Arg Asn Phe Ser
915 920 925

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 55 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Val Gln Trp Asn Gln Ile Phe Ser Glu Asn Glu Arg Phe Asn Cys Tyr
930 935 940
Pro Asp Ala Asp Leu Ala Thr Glu Gln Lys Cys Thr Gln Arg Gly Cys
945 950 955 960
Val Trp Arg Thr Gly Ser Ser Leu Ser Lys Ala Pro Glu Cys Tyr Phe
965 970 975
Pro Arg Gln Asp Asn Ser Tyr Ser Val Asn Ser Ala Arg Tyr Ser Ser
980 985 990
Met Gly Ile Thr Ala Asp Leu Gln Leu Asn Thr Ala Asn Ala Arg Ile
995 1000 1005
Lys Leu Pro Ser Asp Pro Ile Ser Thr Leu Arg Val Glu Val Lys Tyr
1010 1015 1020
His Lys Asn Asp Met Leu Gln Phe Lys Ile Tyr Asp Pro Gln Lys Lys
1025 1030 1035 1040
Arg Tyr Glu Val Pro Val Pro Leu Asn Ile Pro Thr Thr Pro Ile Ser
1045 1050 1055
Thr Tyr Glu Asp Arg Leu Tyr Asp Val Glu Ile Lys Glu Asn Pro Phe
1060 1065 1070
Gly Ile Gln Ile Arg Arg Arg Ser Ser Gly Arg Val Ile Trp Asp Ser
1075 1080 1085
Trp Leu Pro Gly Phe Ala Phe Asn Asp Gln Phe Ile Gln Ile Ser Thr
1090 1095 1100
Arg Leu Pro Ser Glu Tyr Ile Tyr Gly Phe Gly Glu Val Glu His Thr
1105 1110 1115 1120
Ala Phe Lys Arg Asp Leu Asn Trp Asn Thr Trp Gly Met Phe Thr Arg
1125 1130 1135
Asp Gln Pro Pro Gly Tyr Lys Leu Asn Ser Tyr Gly Phe His Pro Tyr
1140 1145 1150
Tyr Met Ala Leu Glu Glu Glu Gly Asn Ala His Gly Val Phe Leu Leu
1155 1160 1165
Asn Ser Asn Ala Met Asp Val Thr Phe Gln Pro Thr Pro Ala Leu Thr
1170 1175 1180
Tyr Arg Thr Val Gly Gly Ile Leu Asp Phe Tyr Met Phe Leu Gly Pro
1185 1190 1195 1200
Thr Pro Gln Val Ala Thr Lys Gln Tyr His Glu Val Ile Gly His Pro
1205 1210 1215
Val Met Pro Ala Tyr Trp Ala Leu Gly Phe Gln Leu Cys Arg Tyr Gly
1220 1225 1230
Tyr Ala Asn Thr Ser Glu Val Arg Glu Leu Tyr Asp Ala Met Val Ala
1235 1240 1245
Ala Asn Ile Pro Tyr Asp Val Gln Tyr Thr Asp Ile Asp Tyr Met Glu
1250 1255 1260
Arg Gln Leu Asp Phe Thr Ile Gly Glu Ala Phe Gln Asp Leu Pro Gln
1265 1270 1275 1280
Phe Val Asp Lys Ile Arg Gly Glu Gly Met Arg Tyr Ile Ile Ile Leu
1285 1290 1295

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 56 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Asp Pro Ala Ile Ser Gly Asn Glu Thr Lys Thr Tyr Pro Ala Phe Glu
1300 1305 1310
Arg Gly Gln Gln Asn Asp Val Phe Val Lys Trp Pro Asn Thr Asn Asp
1315 1320 1325
Ile Cys Trp Ala Lys Val Trp Pro Asp Leu Pro Asn Ile Thr Ile Asp
1330 1335 1340
Lys Thr Leu Thr Glu Asp Glu Ala Val Asn Ala Ser Arg Ala His Val
1345 1350 1355 1360
Ala Phe Pro Asp Phe Phe Arg Thr Ser Thr Ala Glu Trp Trp Ala Arg
1365 1370 1375
Glu Ile Val Asp Phe Tyr Asn Glu Lys Met Lys Phe Asp Gly Leu Trp
1380 1385 1390
Ile Asp Met Asn Glu Pro Ser Ser Phe Val Asn Gly Thr Thr Thr Asn
1395 1400 1405
Gln Cys Arg Asn Asp Glu Leu Asn Tyr Pro Pro Tyr Phe Pro Glu Leu
1410 1415 1420
Thr Lys Arg Thr Asp Gly Leu His Phe Arg Thr Ile Cys Met Glu Ala
1425 1430 1435 1440
Glu Gln Ile Leu Ser Asp Gly Thr Ser Val Leu His Tyr Asp Val His
1445 1450 1455
Asn Leu Tyr Gly Trp Ser Gln Met Lys Pro Thr His Asp Ala Leu Gln
1460 1465 1470
Lys Thr Thr Gly Lys Arg Gly Ile Val Ile Ser Arg Ser Thr Tyr Pro
1475 1480 1485
Thr Ser Gly Arg Trp Gly Gly His Trp Leu Gly Asp Asn Tyr Ala Arg
1490 1495 1500
Trp Asp Asn Met Asp Lys Ser Ile Ile Gly Met Met Glu Phe Ser Leu
1505 1510 1515 1520
Phe Gly Ile Ser Tyr Thr Gly Ala Asp Ile Cys Gly Phe Phe Asn Asn
1525 1530 1535
Ser Glu Tyr His Leu Cys Thr Arg Trp Met Gln Leu Gly Ala Phe Tyr
1540 1545 1550
Pro Tyr Ser Arg Asn His Asn Ile Ala Asn Thr Arg Arg Gln Asp Pro
1555 1560 1565
Ala Ser Trp Asn Glu Thr Phe Ala Glu Met Ser Arg Asn Ile Leu Asn
1570 1575 1580
Ile Arg Tyr Thr Leu Leu Pro Tyr Phe Tyr Thr Gln Met His Glu Ile
1585 1590 1595 1600
His Ala Asn Gly Gly Thr Val Ile Arg Pro Leu Leu His Glu Phe Phe
1605 1610 1615
Asp Glu Lys Pro Thr Trp Asp Ile Phe Lys Gln Phe Leu Trp Gly Pro
1620 1625 1630
Ala Phe Met Val Thr Pro Val Leu Glu Pro Tyr Val Gln Thr Val Asn
1635 1640 1645
Ala Tyr Val Pro Asn Ala Arg Trp Phe Asp Tyr His Thr Gly Lys Asp
1650 1655 1660

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 57 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Ile Gly Val Arg Gly Gln Phe Gln Thr Phe Asn Ala Ser Tyr Asp Thr
1665 1670 1675 1680
Ile Asn Leu His Val Arg Gly Gly His Ile Leu Pro Cys Gln Glu Pro
1685 1690 1695
Ala Gln Asn Thr Phe Tyr Ser Arg Gln Lys His Met Lys Leu Ile Val
1700 1705 1710
Ala Ala Asp Asp Asn Gln Met Ala Gln Gly Ser Leu Phe Trp Asp Asp
1715 1720 1725
Gly Glu Ser Ile Asp Thr Tyr Glu Arg Asp Leu Tyr Leu Ser Val Gln
1730 1735 1740
Phe Asn Leu Asn Gln Thr Thr Leu Thr Ser Thr Ile Leu Lys Arg Gly
1745 1750 1755 1760
Tyr Ile Asn Lys Ser Glu Thr Arg Leu Gly Ser Leu His Val Trp Gly
1765 1770 1775
Lys Gly Thr Thr Pro Val Asn Ala Val Thr Leu Thr Tyr Asn Gly Asn
1780 1785 1790
Lys Asn Ser Leu Pro Phe Asn Glu Asp Thr Thr Asn Met Ile Leu Arg
1795 1800 1805
Ile Asp Leu Thr Thr His Asn Val Thr Leu Glu Glu Pro Ile Glu Ile
1810 1815 1820
Asn Trp Ser
1825

(2) INFORMATION FOR SEQ ID NO: 180:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2284 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION: 45...2099
- (D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 180:

GCCTTACTGC AGGAAGGCAC TCGAAGACA TAAGTCGGTG AGAC ATG GCT GAA GAT

56

Met Ala Glu Asp

1

AAA AGC AAG AGA GAC TCC ATC GAG ATG AGT ATG AAG GGA TGC CAG ACA 104

Lys Ser Lys Arg Asp Ser Ile Glu Met Ser Met Lys Gly Cys Gln Thr

5 10 15 20

AAC AAC GGG TTT GTC CAT AAT GAA GAC ATT CTG GAG CAG ACC CCG GAT 152

Asn Asn Gly Phe Val His Asn Glu Asp Ile Leu Glu Gln Thr Pro Asp

25 30 35

CCA GGC AGC TCA ACA GAC AAC CTG AAG CAC AGC ACC AGG GGC ATC CTT 200

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 58 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Pro Gly Ser Ser Thr Asp Asn Leu Lys His Ser Thr Arg Gly Ile Leu
40 45 50
GGC TCC CAG GAG CCC GAC TTC AAG GGC GTC CAG CCC TAT GCG GGG ATG 248
Gly Ser Gln Glu Pro Asp Phe Lys Gly Val Gln Pro Tyr Ala Gly Met
55 60 65
CCC AAG GAG GTG CTG TTC CAG TTC TCT GGC CAG GCC CGC TAC CGC ATA 296
Pro Lys Glu Val Leu Phe Gln Phe Ser Gly Gln Ala Arg Tyr Arg Ile
70 75 80
CCT CGG GAG ATC CTC TTC TGG CTC ACA GTG GCT TCT GTG CTG GTG CTC 344
Pro Arg Glu Ile Leu Phe Trp Leu Thr Val Ala Ser Val Leu Val Leu
85 90 95 100
ATC GCG GCC ACC ATA GCC ATC ATT GCC CTC TCT CCA AAG TGC CTA GAC 392
Ile Ala Ala Thr Ile Ala Ile Ile Ala Leu Ser Pro Lys Cys Leu Asp
105 110 115
TGG TGG CAG GAG GGG CCC ATG TAC CAG ATC TAC CCA AGG TCT TTC AAG 440
Trp Trp Gln Glu Gly Pro Met Tyr Gln Ile Tyr Pro Arg Ser Phe Lys
120 125 130
GAC AGT AAC AAG GAT GGG AAC GGA GAT CTG AAA GGT ATT CAA GAT AAA 488
Asp Ser Asn Lys Asp Gly Asn Gly Asp Leu Lys Gly Ile Gln Asp Lys
135 140 145
CTG GAC TAC ATC ACA GCT TTA AAT ATA AAA ACT GTT TGG ATT ACT TCA 536
Leu Asp Tyr Ile Thr Ala Leu Asn Ile Lys Thr Val Trp Ile Thr Ser
150 155 160
TTT TAT AAA TCG TCC CTT AAA GAT TTC AGA TAT GGT GTT GAA GAT TTC 584
Phe Tyr Lys Ser Ser Leu Lys Asp Phe Arg Tyr Gly Val Glu Asp Phe
165 170 175 180
CGG GAA GTT GAT CCC ATT TTT GGA ACG ATG GAA GAT TTT GAG AAT CTG 632
Arg Glu Val Asp Pro Ile Phe Gly Thr Met Glu Asp Phe Glu Asn Leu
185 190 195
GTT GCA GCC ATA CAT GAT AAA GGT TTA AAA TTA ATC ATC GAT TTC ATA 680
Val Ala Ala Ile His Asp Lys Gly Leu Lys Leu Ile Ile Asp Phe Ile
200 205 210
CCA AAC CAC ACG AGT GAT AAA CAT ATT TGG TTT CAA TTG AGT CGG ACA 728
Pro Asn His Thr Ser Asp Lys His Ile Trp Phe Gln Leu Ser Arg Thr
215 220 225
CGG ACA GGA AAA TAT ACT GAT TAT TAT ATC TGG CAT GAC TGT ACC CAT 776
Arg Thr Gly Lys Tyr Thr Asp Tyr Tyr Ile Trp His Asp Cys Thr His
230 235 240
GAA AAT GGC AAA ACC ATT CCA CCC AAC AAC TGG TTA AGT GTG TAT GGA 824
Glu Asn Gly Lys Thr Ile Pro Pro Asn Asn Trp Leu Ser Val Tyr Gly
245 250 255 260
AAC TCC AGT TGG CAC TTT GAC GAA GTG CGA AAC CAA TGT TAT TTT CAT 872
Asn Ser Ser Trp His Phe Asp Glu Val Arg Asn Gln Cys Tyr Phe His
265 270 275
CAG TTT ATG AAA GAG CAA CCT GAT TTA AAT TTC CGC AAT CCT GAT GTT 920
Gln Phe Met Lys Glu Gln Pro Asp Leu Asn Phe Arg Asn Pro Asp Val

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 59 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

```

      280      285      290
CAA GAA GAA ATA AAA GAA ATT TTA CGG TTC TGG CTC ACA AAG GGT GTT   968
Gln Glu Glu Ile Lys Glu Ile Leu Arg Phe Trp Leu Thr Lys Gly Val
      295      300      305
GAT GGT TTT AGT TTG GAT GCT GTT AAA TTC CTC CTA GAA GCA AAG CAC   1016
Asp Gly Phe Ser Leu Asp Ala Val Lys Phe Leu Leu Glu Ala Lys His
      310      315      320
CTG AGA GAT GAG ATC CAA GTA AAT AAG ACC CAA ATC CCG GAC ACG GTC   1064
Leu Arg Asp Glu Ile Gln Val Asn Lys Thr Gln Ile Pro Asp Thr Val
      325      330      335      340
ACA CAA TAC TCG GAG CTG TAC CAT GAC TTC ACC ACC ACG CAG GTG GGA   1112
Thr Gln Tyr Ser Glu Leu Tyr His Asp Phe Thr Thr Thr Gln Val Gly
      345      350      355
ATG CAC GAC ATT GTC CGC AGC TTC CGG CAG ACC ATG GAC CAA TAC AGC   1160
Met His Asp Ile Val Arg Ser Phe Arg Gln Thr Met Asp Gln Tyr Ser
      360      365      370
ACG GAG CCC GGC AGA TAC AGG TTC ATG GGG ACT GAA GCC TAT GCA GAG   1208
Thr Glu Pro Gly Arg Tyr Arg Phe Met Gly Thr Glu Ala Tyr Ala Glu
      375      380      385
AGT ATT GAC AGG ACC GTG ATG TAC TAT GGA TTG CCA TTT ATC CAA GAA   1256
Ser Ile Asp Arg Thr Val Met Tyr Tyr Gly Leu Pro Phe Ile Gln Glu
      390      395      400
GCT GAT TTT CCC TTC AAC AAT TAC CTC AGC ATG CTA GAC ACT GTT TCT   1304
Ala Asp Phe Pro Phe Asn Asn Tyr Leu Ser Met Leu Asp Thr Val Ser
      405      410      415      420
GGG AAC AGC GTG TAT GAG GTT ATC ACA TCC TGG ATG GAA AAC ATG CCA   1352
Gly Asn Ser Val Tyr Glu Val Ile Thr Ser Trp Met Glu Asn Met Pro
      425      430      435
GAA GGA AAA TGG CCT AAC TGG ATG ATT GGT GGA CCA GAC AGT TCA CGG   1400
Glu Gly Lys Trp Pro Asn Trp Met Ile Gly Gly Pro Asp Ser Ser Arg
      440      445      450
CTG ACT TCG CGT TTG GGG AAT CAG TAT GTC AAC GTG ATG AAC ATG CTT   1448
Leu Thr Ser Arg Leu Gly Asn Gln Tyr Val Asn Val Met Asn Met Leu
      455      460      465
CTT TTC ACA CTC CCT GGA ACT CCT ATA ACT TAC TAT GGA GAA GAA ATT   1496
Leu Phe Thr Leu Pro Gly Thr Pro Ile Thr Tyr Tyr Gly Glu Glu Ile
      470      475      480
GGA ATG GGA AAT ATT GTA GCC GCA AAT CTC AAT GAA AGC TAT GAT ATT   1544
Gly Met Gly Asn Ile Val Ala Ala Asn Leu Asn Glu Ser Tyr Asp Ile
      485      490      495      500
AAT ACC CTT CGC TCA AAG TCA CCA ATG CAG TGG GAC AAT AGT TCA AAT   1592
Asn Thr Leu Arg Ser Lys Ser Pro Met Gln Trp Asp Asn Ser Ser Asn
      505      510      515
GCT GGT TTT TCT GAA GCT AGT AAC ACC TGG TTA CCT ACC AAT TCA GAT   1640
Ala Gly Phe Ser Glu Ala Ser Asn Thr Trp Leu Pro Thr Asn Ser Asp
      520      525      530
```

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 60 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

TAC CAC ACT GTG AAT GTT GAT GTC CAA AAG ACT CAG CCC AGA TCG GCT 1688
Tyr His Thr Val Asn Val Asp Val Gln Lys Thr Gln Pro Arg Ser Ala
535 540 545
TTG AAG TTA TAT CAA GAT TTA AGT CTA CTT CAT GCC AAT GAG CTA CTC 1736
Leu Lys Leu Tyr Gln Asp Leu Ser Leu Leu His Ala Asn Glu Leu Leu
550 555 560
CTC AAC AGG GGC TGG TTT TGC CAT TTG AGG AAT GAC AGC CAC TAT GTT 1784
Leu Asn Arg Gly Trp Phe Cys His Leu Arg Asn Asp Ser His Tyr Val
565 570 575 580
GTG TAC ACA AGA GAG CTG GAT GGC ATC GAC AGA ATC TTT ATC GTG GTT 1832
Val Tyr Thr Arg Glu Leu Asp Gly Ile Asp Arg Ile Phe Ile Val Val
585 590 595
CTG AAT TTT GGA GAA TCA ACA CTG TTA AAT CTA CAT AAT ATG ATT TCG 1880
Leu Asn Phe Gly Glu Ser Thr Leu Leu Asn Leu His Asn Met Ile Ser
600 605 610
GGC CTT CCC GCT AAA ATA AGA ATA AGG TTA AGT ACC AAT TCT GCC GAC 1928
Gly Leu Pro Ala Lys Ile Arg Ile Arg Leu Ser Thr Asn Ser Ala Asp
615 620 625
AAA GGC AGT AAA GTT GAT ACA AGT GGC ATT TTT CTG GAC AAG GGA GAG 1976
Lys Gly Ser Lys Val Asp Thr Ser Gly Ile Phe Leu Asp Lys Gly Glu
630 635 640
GGA CTC ATC TTT GAA CAC AAC ACG AAG AAT CTC CTT CAT CGC CAA ACA 2024
Gly Leu Ile Phe Glu His Asn Thr Lys Asn Leu Leu His Arg Gln Thr
645 650 655 660
GCT TTC AGA GAT AGA TGC TTT GTT TCC AAT CGA GCA TGC TAT TCC AGT 2072
Ala Phe Arg Asp Arg Cys Phe Val Ser Asn Arg Ala Cys Tyr Ser Ser
665 670 675
GTA CTG AAC ATA CTG TAT ACC TCG TGT TAGGCACCTT TATGAAGAGA TGAAGAC
2126
Val Leu Asn Ile Leu Tyr Thr Ser Cys
680 685
ACTGGCATTTCAGTGGGATTGTAAGCATTGTAAATAGCTTCATGTACAGC
ATGCTGCTTG 2186
GTGAACAATCATTAATTCTTCGATATTTCTGTAGCTTGAA TGTAACCGCT
TTAAGAAAGG 2246
TTCTCAAATGTTTTGAAAAAATAAAATGTTAAAGT 2284

(2) INFORMATION FOR SEQ ID NO: 181:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 685 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 181:

Met Ala Glu Asp Lys Ser Lys Arg Asp Ser Ile Glu Met Ser Met Lys

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 61 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

1 5 10 15
Gly Cys Gln Thr Asn Asn Gly Phe Val His Asn Glu Asp Ile Leu Glu
20 25 30
Gln Thr Pro Asp Pro Gly Ser Ser Thr Asp Asn Leu Lys His Ser Thr
35 40 45
Arg Gly Ile Leu Gly Ser Gln Glu Pro Asp Phe Lys Gly Val Gln Pro
50 55 60
Tyr Ala Gly Met Pro Lys Glu Val Leu Phe Gln Phe Ser Gly Gln Ala
65 70 75 80
Arg Tyr Arg Ile Pro Arg Glu Ile Leu Phe Trp Leu Thr Val Ala Ser
85 90 95
Val Leu Val Leu Ile Ala Ala Thr Ile Ala Ile Ile Ala Leu Ser Pro
100 105 110
Lys Cys Leu Asp Trp Trp Gln Glu Gly Pro Met Tyr Gln Ile Tyr Pro
115 120 125
Arg Ser Phe Lys Asp Ser Asn Lys Asp Gly Asn Gly Asp Leu Lys Gly
130 135 140
Ile Gln Asp Lys Leu Asp Tyr Ile Thr Ala Leu Asn Ile Lys Thr Val
145 150 155 160
Trp Ile Thr Ser Phe Tyr Lys Ser Ser Leu Lys Asp Phe Arg Tyr Gly
165 170 175
Val Glu Asp Phe Arg Glu Val Asp Pro Ile Phe Gly Thr Met Glu Asp
180 185 190
Phe Glu Asn Leu Val Ala Ala Ile His Asp Lys Gly Leu Lys Leu Ile
195 200 205
Ile Asp Phe Ile Pro Asn His Thr Ser Asp Lys His Ile Trp Phe Gln
210 215 220
Leu Ser Arg Thr Arg Thr Gly Lys Tyr Thr Asp Tyr Tyr Ile Trp His
225 230 235 240
Asp Cys Thr His Glu Asn Gly Lys Thr Ile Pro Pro Asn Asn Trp Leu
245 250 255
Ser Val Tyr Gly Asn Ser Ser Trp His Phe Asp Glu Val Arg Asn Gln
260 265 270
Cys Tyr Phe His Gln Phe Met Lys Glu Gln Pro Asp Leu Asn Phe Arg
275 280 285
Asn Pro Asp Val Gln Glu Glu Ile Lys Glu Ile Leu Arg Phe Trp Leu
290 295 300
Thr Lys Gly Val Asp Gly Phe Ser Leu Asp Ala Val Lys Phe Leu Leu
305 310 315 320
Glu Ala Lys His Leu Arg Asp Glu Ile Gln Val Asn Lys Thr Gln Ile
325 330 335
Pro Asp Thr Val Thr Gln Tyr Ser Glu Leu Tyr His Asp Phe Thr Thr
340 345 350
Thr Gln Val Gly Met His Asp Ile Val Arg Ser Phe Arg Gln Thr Met
355 360 365
Asp Gln Tyr Ser Thr Glu Pro Gly Arg Tyr Arg Phe Met Gly Thr Glu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 62 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

370 375 380
Ala Tyr Ala Glu Ser Ile Asp Arg Thr Val Met Tyr Tyr Gly Leu Pro
385 390 395 400
Phe Ile Gln Glu Ala Asp Phe Pro Phe Asn Asn Tyr Leu Ser Met Leu
405 410 415
Asp Thr Val Ser Gly Asn Ser Val Tyr Glu Val Ile Thr Ser Trp Met
420 425 430
Glu Asn Met Pro Glu Gly Lys Trp Pro Asn Trp Met Ile Gly Gly Pro
435 440 445
Asp Ser Ser Arg Leu Thr Ser Arg Leu Gly Asn Gln Tyr Val Asn Val
450 455 460
Met Asn Met Leu Leu Phe Thr Leu Pro Gly Thr Pro Ile Thr Tyr Tyr
465 470 475 480
Gly Glu Glu Ile Gly Met Gly Asn Ile Val Ala Ala Asn Leu Asn Glu
485 490 495
Ser Tyr Asp Ile Asn Thr Leu Arg Ser Lys Ser Pro Met Gln Trp Asp
500 505 510
Asn Ser Ser Asn Ala Gly Phe Ser Glu Ala Ser Asn Thr Trp Leu Pro
515 520 525
Thr Asn Ser Asp Tyr His Thr Val Asn Val Asp Val Gln Lys Thr Gln
530 535 540
Pro Arg Ser Ala Leu Lys Leu Tyr Gln Asp Leu Ser Leu Leu His Ala
545 550 555 560
Asn Glu Leu Leu Asn Arg Gly Trp Phe Cys His Leu Arg Asn Asp
565 570 575
Ser His Tyr Val Val Tyr Thr Arg Glu Leu Asp Gly Ile Asp Arg Ile
580 585 590
Phe Ile Val Val Leu Asn Phe Gly Glu Ser Thr Leu Leu Asn Leu His
595 600 605
Asn Met Ile Ser Gly Leu Pro Ala Lys Ile Arg Ile Arg Leu Ser Thr
610 615 620
Asn Ser Ala Asp Lys Gly Ser Lys Val Asp Thr Ser Gly Ile Phe Leu
625 630 635 640
Asp Lys Gly Glu Gly Leu Ile Phe Glu His Asn Thr Lys Asn Leu Leu
645 650 655
His Arg Gln Thr Ala Phe Arg Asp Arg Cys Phe Val Ser Asn Arg Ala
660 665 670
Cys Tyr Ser Ser Val Leu Asn Ile Leu Tyr Thr Ser Cys
675 680 685

(2) INFORMATION FOR SEQ ID NO: 182:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 54 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 182:

Leu Val Pro Arg Gly Ser Pro Gly Ile Pro Gly Ser Arg Val Gly Gln

1 5 10 15

Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala Arg Ser Cys Ala His

20 25 30

Gln Gly Cys Gly Ala Gly Thr Arg Asn Ser His Gly Cys Ile Thr Arg

35 40 45

Pro Leu Arg Gln Ala Ser

50

(2) INFORMATION FOR SEQ ID NO: 183:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 183:

Ser Ala Arg Asp Ser Gly Pro Ala Glu Asp Gly Ser Arg Ala Val Arg

1 5 10 15

Leu Asn Gly

(2) INFORMATION FOR SEQ ID NO: 184:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 184:

Asp Gly Ser Arg Ala Val Arg Leu Asn Gly Val Glu Asn Ala Asn Thr

1 5 10 15

Arg Lys Ser Ser Arg

20

(2) INFORMATION FOR SEQ ID NO: 185:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 185:

Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly Arg

1 5 10 15

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Arg His Pro

(2) INFORMATION FOR SEQ ID NO: 186:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 11 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 186:

Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly
1 5 10

(2) INFORMATION FOR SEQ ID NO: 187:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 21 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 187:

Ser Arg Pro Tyr Ser Val Asp Ser Asp Ser Asp Thr Asn Ala Lys His
1 5 10 15
Ser Ser His Asn Arg
20

(2) INFORMATION FOR SEQ ID NO: 188:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 19 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 188:

Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg Ser
1 5 10 15
Arg Pro Asn

(2) INFORMATION FOR SEQ ID NO: 189:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 24 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 189:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 65 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Arg Tyr Lys His Asp Ile Gly Cys Asp Ala Gly Val Asp Lys Lys Ser
1 5 10 15
Ser Ser Val Arg Gly Gly Cys Gly
20

(2) INFORMATION FOR SEQ ID NO: 190:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 26 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 190:

Gly Cys Asp Ala Gly Val Asp Lys Lys Ser Ser Ser Val Arg Gly Gly
1 5 10 15
Cys Gly Ala His Ser Ser Pro Pro Arg Ala
20 25

(2) INFORMATION FOR SEQ ID NO: 191:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 21 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 191:

Gly Ala His Ser Ser Pro Pro Arg Ala Gly Arg Gly Pro Arg Gly Thr
1 5 10 15
Met Val Ser Arg Leu
20

(2) INFORMATION FOR SEQ ID NO: 192:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 10 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 192:

Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 193:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 39 amino acids
- (B) TYPE:** amino acid

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 193:
Lys Lys Arg Ile Ala Gly Leu Pro Trp Tyr Arg Cys Arg Thr Val Ala
1 5 10 15
Phe Glu Thr Thr Gly Met Gln Asn Thr Gln Leu Cys Ser Thr Ile Val Gln
20 25 30
Leu Ser Phe Thr Pro Glu Glu
35
- (2) INFORMATION FOR SEQ ID NO: 194:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 194:
Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 195:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 195:
Ser Asn Pro Arg Gly Arg Arg His Pro
1 5
- (2) INFORMATION FOR SEQ ID NO: 196:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 196:
Thr Asn Ala Lys His Ser Ser His Asn
1 5
- (2) INFORMATION FOR SEQ ID NO: 197:
(i) SEQUENCE CHARACTERISTICS:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 67 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 197:
Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 198:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 198:
Arg Arg Leu Arg Thr Arg Ser Arg Pro Asn
1 5 10

(2) INFORMATION FOR SEQ ID NO: 199:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 199:
Arg Val Gly Gln Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala Arg
1 5 10 15
Ser Cys Ala

(2) INFORMATION FOR SEQ ID NO: 200:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 200:
Val Arg Arg Pro Trp Ala Arg Ser Cys Ala His Gln Gly Cys Gly Ala
1 5 10 15
Gly Thr Arg Asn Ser
20

(2) INFORMATION FOR SEQ ID NO: 201:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 68 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 19 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 201:

Gly Thr Arg Asn Ser His Gly Cys Ile Thr Arg Pro Leu Arg Gln Ala
1 5 10 15
Ser Gln His

(2) INFORMATION FOR SEQ ID NO: 202:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 40 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 202:

Ser Thr Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val Asp
1 5 10 15
Ser Asp Ser Asp Thr Met Ala Lys His Ser Ser His Asn Arg Arg Leu
20 25 30
Arg Thr Arg Ser Arg Pro Asn Gly
35 40

(2) INFORMATION FOR SEQ ID NO: 203:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 4 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 203:

Tyr Ser Lys Val
1

(2) INFORMATION FOR SEQ ID NO: 204:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 4 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 204:

Phe Pro His Leu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

1

(2) INFORMATION FOR SEQ ID NO: 205:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 205:

Tyr Arg Gly Val

1

(2) INFORMATION FOR SEQ ID NO: 206:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 206:

Tyr Gln Thr Ile

1

(2) INFORMATION FOR SEQ ID NO: 207:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 207:

Thr Glu Gln Phe

1

(2) INFORMATION FOR SEQ ID NO: 208:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 208:

Thr Glu Val Met

1

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 209:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 209:

Thr Ser Ala Phe

1

(2) INFORMATION FOR SEQ ID NO: 210:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 210:

Tyr Thr Arg Phe

1

(2) INFORMATION FOR SEQ ID NO: 211:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 717 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: DNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION: 1...714
- (D) OTHER INFORMATION:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 211:

ATG TCC CCT ATA CTA GGT TAT TGG AAA ATT AAG GGC CTT GTG CAA CCC 48

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro

1 5 10 15

ACT CGA CTT CTT TTG GAA TAT CTT GAA GAA AAA TAT GAA GAG CAT TTG 96

Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu

20 25 30

TAT GAG CGC GAT GAA GGT GAT AAA TGG CGA AAC AAA AAG TTT GAA TTG 144

Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu

35 40 45

GGT TTG GAG TTT CCC AAT CTT CCT TAT TAT ATT GAT GGT GAT GTT AAA 192

Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys

50 55 60

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

```
TTA ACA CAG TCT ATG GCC ATC ATA CGT TAT ATA GCT GAC AAG CAC AAC 240
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65      70      75      80
ATG TTG GGT GGT TGT CCA AAA GAG CGT GCA GAG ATT TCA ATG CTT GAA 288
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85      90      95
GGA GCG GTT TTG GAT ATT AGA TAC GGT GTT TCG AGA ATT GCA TAT AGT 336
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100     105     110
AAA GAC TTT GAA ACT CTC AAA GTT GAT TTT CTT AGC AAG CTA CCT GAA 384
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115     120     125
ATG CTG AAA ATG TTC GAA GAT CGT TTA TGT CAT AAA ACA TAT TTA AAT 432
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130     135     140
GGT GAT CAT GTA ACC CAT CCT GAC TTC ATG TTG TAT GAC GCT CTT GAT 480
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145     150     155     160
GTT GTT TTA TAC ATG GAC CCA ATG TGC CTG GAT GCG TTC CCA AAA TTA 528
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165     170     175
GTT TGT TTT AAA AAA CGT ATT GAA GCT ATC CCA CAA ATT GAT AAG TAC 576
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180     185     190
TTG AAA TCC AGC AAG TAT ATA GCA TGG CCT TTG CAG GGC TGG CAA GCC 624
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195     200     205
ACG TTT GGT GGT GGC GAC CAT CCT CCA AAA TCG GAT CTG GTT CCG CGT 672
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210     215     220
GGA TCC CCA GGA ATT CCC GGG TCG ACT CGA GCG GCC GCA TCG TGA 717
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser
225     230     235
```

(2) INFORMATION FOR SEQ ID NO: 212:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 238 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 212:

```
Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1      5      10      15
Thr Arg Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20     25     30
```

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser
225 230 235

(2) INFORMATION FOR SEQ ID NO: 213:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 282 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 213:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Gln
225 230 235 240
Gly Ser Lys Gln Cys Met Gln Tyr Arg Thr Gly Arg Leu Thr Val Gly
245 250 255
Ser Glu Tyr Gly Cys Gly Met Asn Pro Ala Arg His Ala Thr Pro Ala
260 265 270
Tyr Pro Ala Arg Leu Leu Pro Arg Tyr Arg
275 280

(2) INFORMATION FOR SEQ ID NO: 214:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 282 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 214:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Asp
225 230 235 240
His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys Glu Pro Gly
245 250 255
Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly Arg Lys Val Phe
260 265 270
Asn Arg Arg Arg Pro Ser Ala Ile Pro Thr
275 280

(2) INFORMATION FOR SEQ ID NO: 215:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 279 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 215:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Pro
225 230 235 240
Cys Gly Gly Ser Trp Gly Arg Phe Met Gln Gly Gly Leu Phe Gly Gly
245 250 255
Arg Thr Asp Gly Cys Gly Ala His Arg Asn Arg Thr Ser Ala Ser Leu
260 265 270
Glu Pro Pro Ser Ser Asp Tyr
275

(2) INFORMATION FOR SEQ ID NO: 216:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 277 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 216:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Arg Gly
225 230 235 240
Ser Thr Gly Thr Ala Gly Gly Glu Arg Ser Gly Val Leu Asn Leu His
245 250 255
Thr Arg Asp Asn Ala Ser Gly Ser Gly Phe Lys Pro Trp Tyr Pro Ser
260 265 270
Asn Arg Gly His Lys
275

(2) INFORMATION FOR SEQ ID NO: 217:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 277 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 217:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser His
225 230 235 240
Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val Phe Arg Glu Leu Arg
245 250 255
Asp Arg Trp Asn Ala Thr Ser His His Thr Arg Pro Thr Pro Gln Leu
260 265 270
Pro Arg Gly Pro Asn
275

(2) INFORMATION FOR SEQ ID NO: 218:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 248 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 218:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ser Ser His
225 230 235 240
Ser Gly Gly Met Asn Arg Ala Tyr
245

(2) INFORMATION FOR SEQ ID NO: 219:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 248 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 219:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Gly Asp
225 230 235 240
Val Phe Arg Glu Leu Arg Asp Arg
245

(2) INFORMATION FOR SEQ ID NO: 220:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 248 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 220:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 80 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Trp Asn
225 230 235 240
Ala Thr Ser His His Thr Arg Pro
245

(2) INFORMATION FOR SEQ ID NO: 221:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 247 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 221:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Thr Pro
225 230 235 240
Gln Leu Pro Arg Gly Pro Asn

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 81 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

245

(2) INFORMATION FOR SEQ ID NO: 222:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 258 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 222:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Gly Asp
225 230 235 240
Val Phe Arg Glu Leu Arg Asp Arg Trp Asn Ala Thr Ser His His Thr
245 250 255
Arg Pro

(2) INFORMATION FOR SEQ ID NO: 223:

(i) SEQUENCE CHARACTERISTICS:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 82 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(A) LENGTH: 257 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 223:
Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Trp Asn
225 230 235 240
Ala Thr Ser His His Thr Arg Pro Thr Pro Gln Leu Pro Arg Gly Pro
245 250 255
Asn

(2) INFORMATION FOR SEQ ID NO: 224:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 267 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 83 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 224:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Gly Asp
225 230 235 240
Val Phe Arg Glu Leu Arg Asp Arg Trp Asn Ala Thr Ser His His Thr
245 250 255
Arg Pro Thr Pro Gln Leu Pro Arg Gly Pro Asn
260 265

(2) INFORMATION FOR SEQ ID NO: 225:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 277 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 225:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 84 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

```

1       5       10      15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20      25      30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35      40      45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50      55      60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65      70      75      80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85      90      95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100     105     110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115     120     125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130     135     140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145     150     155     160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165     170     175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180     185     190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195     200     205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210     215     220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser His
225     230     235     240
Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val Phe Arg Glu Leu Arg
245     250     255
Asp Arg Trp Asn Ala Thr Ser Ala Ala Thr Arg Pro Thr Pro Gln Leu
260     265     270
Pro Arg Gly Pro Asn
275
```

(2) INFORMATION FOR SEQ ID NO: 226:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 277 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 226:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 85 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Ala
225 230 235 240
Arg Asp Ser Gly Pro Ala Glu Asp Gly Ser Arg Ala Val Arg Leu Asn
245 250 255
Gly Val Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg
260 265 270
Gly Arg Arg His Pro
275

(2) INFORMATION FOR SEQ ID NO: 227:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 257 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 227:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 86 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Ala
225 230 235 240
Arg Asp Ser Gly Pro Ala Glu Asp Gly Ser Arg Ala Val Arg Leu Asn
245 250 255
Gly

(2) INFORMATION FOR SEQ ID NO: 228:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 259 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 228:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 87 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Asp Gly
225 230 235 240
Ser Arg Ala Val Arg Leu Asn Gly Val Glu Asn Ala Asn Thr Arg Lys
245 250 255
Ser Ser Arg

(2) INFORMATION FOR SEQ ID NO: 229:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 257 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 229:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 88 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Glu Asn
225 230 235 240
Ala Asn Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly Arg Arg His
245 250 255
Pro

(2) INFORMATION FOR SEQ ID NO: 230:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 248 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 230:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 89 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

```

      115      120      125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130      135      140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145      150      155      160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
      165      170      175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
      180      185      190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
      195      200      205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
      210      215      220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Glu Asn
      225      230      235      240
Ala Asn Thr Arg Lys Ser Ser Arg
      245
```

(2) INFORMATION FOR SEQ ID NO: 231:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 248 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 231:

```

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1       5       10      15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Lys Tyr Glu Glu His Leu
      20      25      30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
      35      40      45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
      50      55      60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
      65      70      75      80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
      85      90      95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
      100     105     110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
      115     120     125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
      130     135     140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
      145     150     155     160
```

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 90 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ser Arg Lys
225 230 235 240
Ser Ser Arg Ser Asn Pro Arg Gly
245

(2) INFORMATION FOR SEQ ID NO: 232:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 247 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 232:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 91 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Asn
225 230 235 240
Pro Arg Gly Arg Arg His Pro
245

(2) INFORMATION FOR SEQ ID NO: 233:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 249 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 233:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Thr Arg
225 230 235 240

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Lys Ser Ser Arg Ser Asn Pro Arg Gly
245

(2) INFORMATION FOR SEQ ID NO: 234:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 277 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 234:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Thr
225 230 235 240
Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val Asp Ser Asp
245 250 255
Ser Asp Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr
260 265 270
Arg Ser Arg Pro Asn

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 93 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

275

(2) INFORMATION FOR SEQ ID NO: 235:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 258 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 235:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Thr
225 230 235 240
Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val Asp Ser Asp
245 250 255
Ser Asp

(2) INFORMATION FOR SEQ ID NO: 236:

(i) SEQUENCE CHARACTERISTICS:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(A) LENGTH: 259 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 236:
Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Arg
225 230 235 240
Pro Tyr Ser Val Asp Ser Asp Ser Asp Thr Asn Ala Lys His Ser Ser
245 250 255
His Asn Arg

(2) INFORMATION FOR SEQ ID NO: 237:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 257 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 237:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Thr Asn
225 230 235 240
Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg Ser Arg Pro
245 250 255
Asn

(2) INFORMATION FOR SEQ ID NO: 238:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 247 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 238:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 96 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Thr Asn
225 230 235 240
Ala Lys His Ser Ser His Asn
245

(2) INFORMATION FOR SEQ ID NO: 239:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 248 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 239:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 97 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Ser Ser
225 230 235 240
His Asn Arg Arg Leu Arg Thr Arg
245

(2) INFORMATION FOR SEQ ID NO: 240:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 248 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 240:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 98 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Arg Arg
225 230 235 240
Leu Arg Thr Arg Ser Arg Pro Asn
245

(2) INFORMATION FOR SEQ ID NO: 241:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 282 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 241:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

Page 99 of 159

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Arg Val
225 230 235 240
Gly Gln Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala Arg Ser Cys
245 250 255
Ala His Gln Gly Cys Gly Ala Gly Thr Arg Asn Ser His Gly Cys Ile
260 265 270
Thr Arg Pro Leu Arg Gln Ala Ser Ala His
275 280

(2) INFORMATION FOR SEQ ID NO: 242:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 257 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: <Unknown>
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 242:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Arg Val
225 230 235 240
Gly Gln Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala Arg Ser Cys
245 250 255
Ala

(2) INFORMATION FOR SEQ ID NO: 243:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 259 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 243:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ser Val Arg
225 230 235 240
Arg Pro Trp Ala Arg Ser Cys Ala His Gln Gly Cys Gly Ala Gly Thr
245 250 255
Arg Asn Ser

(2) INFORMATION FOR SEQ ID NO: 244:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 257 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 244:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Gly Thr
225 230 235 240
Arg Asn Ser His Gly Cys Ile Thr Arg Pro Leu Arg Gln Ala Ser Gln
245 250 255
His

(2) INFORMATION FOR SEQ ID NO: 245:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 282 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 245:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Arg Tyr
225 230 235 240

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Lys His Asp Ile Gly Cys Asp Ala Gly Val Asp Lys Lys Ser Ser Ser
245 250 255
Val Arg Gly Gly Cys Gly Ala His Ser Ser Pro Pro Arg Ala Gly Arg
260 265 270
Gly Pro Arg Gly Thr Met Val Ser Arg Leu
275 280

(2) INFORMATION FOR SEQ ID NO: 246:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 262 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 246:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Gly Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Arg Tyr
225 230 235 240
Lys His Asp Ile Gly Cys Asp Ala Gly Val Asp Lys Lys Ser Ser Ser

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

245 250 255
Val Arg Gly Gly Cys Gly
260

(2) INFORMATION FOR SEQ ID NO: 247:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 264 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 247:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Gly Cys
225 230 235 240
Asp Ala Gly Val Asp Lys Lys Ser Ser Ser Val Arg Gly Gly Cys Gly
245 250 255
Ala His Ser Ser Pro Pro Arg Ala
260

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 248:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 259 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 248:

Met Ser Pro Ile Leu Gly Tyr Trp Lys Ile Lys Gly Leu Val Gln Pro
1 5 10 15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
20 25 30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
35 40 45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
50 55 60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65 70 75 80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
85 90 95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
100 105 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
115 120 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
130 135 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
145 150 155 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
165 170 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
180 185 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
195 200 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Val Pro Arg
210 215 220
Gly Ser Pro Gly Ile Pro Gly Ser Thr Arg Ala Ala Ala Ser Gly Ala
225 230 235 240
His Ser Ser Pro Pro Arg Ala Gly Arg Gly Pro Arg Gly Thr Met Val
245 250 255
Ser Arg Leu

(2) INFORMATION FOR SEQ ID NO: 249:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 44 amino acids

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 249:
Ser Gly Ser Pro Pro Cys Cys Ser Trp Gly Arg Phe Met Gln Gly
1 5 10 15
Gly Leu Phe Gly Gly Arg Thr Asp Gly Cys Gly Ala His Arg Asn Arg
20 25 30
Thr Ser Ala Ser Leu Glu Pro Pro Ser Ser Asp Tyr
35 40
- (2) INFORMATION FOR SEQ ID NO: 250:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 40 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 250:
Ser His Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val Phe Arg Glu
1 5 10 15
Leu Arg Asp Arg Trp Asn Ala Thr Ser His His Thr Arg Pro Thr Pro
20 25 30
Gln Leu Pro Arg Gly Pro Asn Ser
35 40
- (2) INFORMATION FOR SEQ ID NO: 251:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 251:
Asp Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15
Ser Arg Pro Asn Gly
20
- (2) INFORMATION FOR SEQ ID NO: 252:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 252:

Cys Gly Ala Gly Thr Arg Asn Ser His Gly Cys Ile Thr Arg Pro Leu
1 5 10 15
Arg Gln Ala Ser Ala His Gly
20

(2) INFORMATION FOR SEQ ID NO: 253:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified Site

(B) LOCATION: 1

(D) OTHER INFORMATION: "Xaa=Ser or Thr"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 253:

Xaa Thr Xaa Xaa Ser Xaa Xaa Xaa Asn Xaa Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 254:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified Site

(B) LOCATION: 2

(D) OTHER INFORMATION: "Xaa=Ser, Ala or Gly"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 254:

Asp Xaa Asp Xaa Arg Arg Xaa Xaa
1 5

(2) INFORMATION FOR SEQ ID NO: 255:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified Site

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (B) LOCATION: 7
(D) OTHER INFORMATION: "Xaa=Ala or Phe"
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 255:
Val Arg Ser Gly Cys Gly Xaa Xaa Ser Ser
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 256:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 256:
Asn Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 257:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 257:
Ser Thr Lys Arg Ser Leu Ile Tyr Asn His Arg
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 258:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 258:
Ser Thr Gly Arg Lys Val Phe Asn Arg Arg
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 259:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: <Unknown>
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 259:

Thr Asn Ala Lys His Ser Ser His Asn Arg Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 260:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 260:

Asp Ser Asp Val Arg Arg Pro Trp
1 5

(2) INFORMATION FOR SEQ ID NO: 261:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 261:

Ala Ala Asp Gln Arg Arg Gly Trp
1 5

(2) INFORMATION FOR SEQ ID NO: 262:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 262:

Asp Gly Arg Gly Gly Arg Ser Tyr
1 5

(2) INFORMATION FOR SEQ ID NO: 263:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 263:

Arg Val Arg Ser

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

1

(2) INFORMATION FOR SEQ ID NO: 264:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 12 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 264:

Ser Val Arg Ser Gly Cys Gly Phe Arg Gly Ser Ser
1 5 10

(2) INFORMATION FOR SEQ ID NO: 265:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 11 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** <Unknown>
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 265:

Ser Val Arg Gly Gly Cys Gly Ala His Ser Ser
1 5 10

(2) INFORMATION FOR SEQ ID NO: 266:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 37 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 2...2
- (D) OTHER INFORMATION:** Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 266:

Cys Xaa Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys Lys
1 5 10 15
Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr His Gln Val
20 25 30
Ser Leu Ser Lys Gln
35

(2) INFORMATION FOR SEQ ID NO: 267:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 18 amino acids

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Ac-Cys

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 267:

Xaa Leu Asn Gly Gly Val Lys Met Tyr Val Glu Ser Val Asp Arg Tyr
1 5 10 15
Val Cys

(2) INFORMATION FOR SEQ ID NO: 268:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Ac-Cys

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 268:

Xaa Leu Asn Gly Gly Val Lys Phe Ile Thr Cys Met Tyr Val Glu Ser
1 5 10 15
Val Asp Arg Tyr Val Cys
20

(2) INFORMATION FOR SEQ ID NO: 269:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 2...2

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 269:

Cys Xaa Arg Leu Asn Gly Val Ser Met Tyr Val Glu Ser Val Asp
1 5 10 15
Arg Tyr Val Cys Arg
20

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 270:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=biotin-Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 270:

Xaa Ser Ala Arg Asp Ser Gly Pro Ala Glu Asp Gly Ser Arg Ala Val
1 5 10 15
Arg Leu Asn Gly Val Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser
20 25 30
Asn Pro Arg Gly Arg Arg His Pro
35 40

(2) INFORMATION FOR SEQ ID NO: 271:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 45 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=biotin-Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 271:

Xaa Ser Ser Ala Asp Ala Glu Lys Cys Ala Gly Ser Leu Leu Trp Trp
1 5 10 15
Gly Arg Gln Asn Asn Ser Gly Cys Gly Ser Pro Thr Lys Lys His Leu
20 25 30
Lys His Arg Asn Arg Ser Gln Thr Ser Ser Ser Ser His
35 40 45

(2) INFORMATION FOR SEQ ID NO: 272:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 45 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=biotin-Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 272:

Xaa Arg Glu Phe Ala Glu Arg Arg Leu Trp Gly Cys Asp Asp Leu Ser
1 5 10 15
Trp Arg Leu Asp Ala Glu Gly Cys Gly Pro Thr Pro Ser Asn Arg Ala
20 25 30
Val Lys His Arg Lys Pro Arg Pro Arg Ser Pro Ala Leu
35 40 45

(2) INFORMATION FOR SEQ ID NO: 273:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 41 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=biotin-Ser

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 273:

Xaa Gly Ser His Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val Phe
1 5 10 15
Arg Glu Leu Arg Asp Arg Trp Tyr Ala Thr Ser His His Thr Arg Pro
20 25 30
Thr Pro Gln Leu Pro Arg Gly Pro Asn
35 40

(2) INFORMATION FOR SEQ ID NO: 274:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 42 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 274:

Xaa Ser Gly Ser His Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val
1 5 10 15
Phe Arg Glu Leu Arg Asp Arg Trp Tyr Ala Thr Ser His His Thr Arg

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
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INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

20 25 30
Pro Thr Pro Gln Leu Pro Arg Gly Pro Asn
35 40

(2) INFORMATION FOR SEQ ID NO: 275:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=biotin-Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 275:

Xaa Ser His Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val Phe Arg
1 5 10 15
Glu Leu Arg Asp Arg Trp Asn Ala Thr Ser His His Thr Arg Pro Thr
20 25 30
Pro Gln Leu Pro Arg Gly Pro Asn
35 40

(2) INFORMATION FOR SEQ ID NO: 276:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 41 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 276:

Xaa Ser His Ser Gly Gly Met Asn Arg Ala Tyr Gly Asp Val Phe Arg
1 5 10 15
Glu Leu Arg Asp Arg Trp Asn Ala Thr Ser His His Thr Arg Pro Thr
20 25 30
Pro Gln Leu Pro Arg Gly Pro Asn Ser
35 40

(2) INFORMATION FOR SEQ ID NO: 277:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 45 amino acids

(B) TYPE: amino acid

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DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 277:
Xaa Ser Gln Gly Ser Lys Gln Cys Met Gln Tyr Arg Thr Gly Arg Leu
1 5 10 15
Thr Val Gly Ser Glu Tyr Gly Cys Gly Met Asn Pro Ala Arg His Ala
20 25 30
Thr Pro Ala Tyr Pro Ala Arg Leu Leu Pro Arg Tyr Arg
35 40 45

(2) INFORMATION FOR SEQ ID NO: 278:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 45 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 278:
Xaa Arg Val Gly Gln Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala
1 5 10 15
Arg Ser Cys Ala His Gln Gly Cys Gly Ala Gly Thr Arg Asn Ser His
20 25 30
Gly Cys Ile Thr Arg Pro Leu Arg Gln Ala Ser Ala His
35 40 45

(2) INFORMATION FOR SEQ ID NO: 279:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=biotin-Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 279:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Xaa Ser Gly Ser Gly Arg Val Gly Gln Cys Thr Asp Ser Asp Val Arg
1 5 10 15
Arg Pro Trp Ala Arg Ser Cys Ala
20

(2) INFORMATION FOR SEQ ID NO: 280:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 280:

Xaa Arg Val Gly Gln Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala
1 5 10 15
Arg Ser Cys Ala
20

(2) INFORMATION FOR SEQ ID NO: 281:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 41 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 281:

Xaa Ser Thr Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val
1 5 10 15
Asp Ser Asp Ser Asp Thr Asn Ala Lys His Ser Ser His Asn Arg Arg
20 25 30
Leu Arg Thr Arg Ser Arg Pro Asn Gly
35 40

(2) INFORMATION FOR SEQ ID NO: 282:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 282:

Xaa Arg Gly Ser Thr Gly Thr Ala Gly Gly Glu Arg Ser Gly Val Leu
1 5 10 15
Asn Leu His Thr Arg Asp Asn Ala Ser Gly Ser Gly Phe Lys Pro Trp
20 25 30
Tyr Pro Ser Asn Arg Gly His Lys
35 40

(2) INFORMATION FOR SEQ ID NO: 283:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 283:

Xaa Ser Gly Ser Gly Leu Tyr Ala Asn Pro Gly Met Tyr Ser Arg Leu
1 5 10 15
His Ser Pro Ala
20

(2) INFORMATION FOR SEQ ID NO: 284:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=biotin-Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 284:

Xaa Ser Gly Ser Gly Leu Tyr Ala Asn Pro Gly Met Tyr Ser Arg Leu
1 5 10 15
His Ser Pro Ala

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

20

(2) INFORMATION FOR SEQ ID NO: 285:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 45 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 285:

Xaa Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys
1 5 10 15
Glu Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly Arg
20 25 30
Lys Val Phe Asn Arg Arg Arg Pro Ser Ala Ile Pro Thr
35 40 45

(2) INFORMATION FOR SEQ ID NO: 286:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 42 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 286:

Xaa Ser Pro Cys Gly Gly Ser Trp Gly Arg Phe Met Gln Gly Gly Leu
1 5 10 15
Phe Gly Gly Arg Thr Asp Gly Cys Gly Ala His Arg Asn Arg Thr Ser
20 25 30
Ala Ser Leu Glu Pro Pro Ser Ser Asp Tyr
35 40

(2) INFORMATION FOR SEQ ID NO: 287:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 45 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 287:

Xaa Arg Tyr Lys His Asp Ile Gly Cys Asp Ala Gly Val Asp Lys Lys
1 5 10 15
Ser Ser Ser Val Arg Gly Gly Cys Gly Ala His Ser Ser Pro Pro Arg
20 25 30
Ala Gly Arg Gly Pro Arg Gly Thr Met Val Ser Arg Leu
35 40 45

(2) INFORMATION FOR SEQ ID NO: 288:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 42 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 288:

Xaa Ser Ala Arg Asp Ser Gly Pro Ala Glu Asp Gly Ser Arg Ala Val
1 5 10 15
Arg Leu Asn Gly Val Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser
20 25 30
Asn Pro Arg Gly Arg Arg His Pro Gly Gly
35 40

(2) INFORMATION FOR SEQ ID NO: 289:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 289:

Xaa Ser Lys Ser Gly Glu Gly Gly Asp Ser Ser Arg Gly Glu Thr Gly
1 5 10 15

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Trp Ala Arg Val Arg Ser His Ala Met Thr Ala Gly Arg Phe Arg Trp
20 25 30
Tyr Asn Gln Leu Pro Ser Asp Arg
35 40

(2) INFORMATION FOR SEQ ID NO: 290:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 41 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 290:

Xaa Ser Glu Ala Asn Leu Asp Gly Arg Lys Ser Arg Tyr Ser Ser Pro
1 5 10 15
Arg Arg Asn Ser Ser Thr Arg Pro Arg Thr Ser Pro Asn Ser Val His
20 25 30
Ala Arg Tyr Pro Ser Thr Asp His Asp
35 40

(2) INFORMATION FOR SEQ ID NO: 291:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 44 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Modified Base

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=biotin-S

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 291:

Xaa Gly Ser Gly Ser Thr Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro
1 5 10 15
Tyr Ser Val Asp Ser Asp Ser Asp Thr Asn Ala Lys His Ser Ser His
20 25 30
Asn Arg Arg Leu Arg Thr Arg Ser Arg Pro Asn Gly
35 40

(2) INFORMATION FOR SEQ ID NO: 292:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 amino acids

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 292:
Xaa Arg Val Gly Gln Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala
1 5 10 15
Arg Ser Cys Ala His Gln Gly
20

(2) INFORMATION FOR SEQ ID NO: 293:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 293:
Xaa Cys Gly Ala Gly Thr Arg Asn Ser His Gly Cys Ile Thr Arg Pro
1 5 10 15
Leu Arg Gln Ala Ser Ala His Gly
20

(2) INFORMATION FOR SEQ ID NO: 294:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 294:
Xaa Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly
1 5 10 15
Arg Arg His Pro Gly

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

20

(2) INFORMATION FOR SEQ ID NO: 295:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 12 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1
- (D) OTHER INFORMATION:** Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 295:

Xaa Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly
1 5 10

(2) INFORMATION FOR SEQ ID NO: 296:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 16 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1
- (D) OTHER INFORMATION:** Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 296:

Xaa Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 297:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 17 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1
- (D) OTHER INFORMATION:** Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 297:

Xaa Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly Arg Arg His Pro
1 5 10 15

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Gly

(2) INFORMATION FOR SEQ ID NO: 298:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 20 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 298:

Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15
Ser Arg Pro Asn
20

(2) INFORMATION FOR SEQ ID NO: 299:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 16 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 299:

Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 300:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 15 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 300:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Xaa Ser Ser His Asn Arg Arg Leu Arg Thr Arg Ser Arg Pro Asn
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 301:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 301:

Xaa Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 302:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 302:

Xaa Val Arg Arg Pro Trp Ala Arg Ser Cys Ala His Gln Gly Cys Gly
1 5 10 15
Ala Gly Thr Arg Asn Ser
20

(2) INFORMATION FOR SEQ ID NO: 303:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: None

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 303:

Xaa Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala Arg Ser Cys
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 304:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 41 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 304:

Xaa Ser Arg Ala Asn Thr Asp Gly Arg Lys Ser Arg Tyr Ser Ser Pro
1 5 10 15
Arg Arg Asn Ser Ser Thr Glu Pro Arg Leu Ser Pro Asn Ser Val His
20 25 30
Ala Arg Tyr Pro Ser Thr Asp His Asp
35 40

(2) INFORMATION FOR SEQ ID NO: 305:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 305:

Xaa Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 306:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

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- (A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 306:
Xaa Ser Asn Pro Arg Gly Arg Arg His Pro Gly
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 307:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 307:
Xaa Glu Asn Ala Asn Thr
1 5
- (2) INFORMATION FOR SEQ ID NO: 308:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 308:
Xaa Ala Asn Thr Arg Lys Ser
1 5
- (2) INFORMATION FOR SEQ ID NO: 309:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other

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- (B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 309:
Xaa Thr Arg Lys Ser Ser
1 5
- (2) INFORMATION FOR SEQ ID NO: 310:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 310:
Xaa Arg Lys Ser Ser Arg
1 5
- (2) INFORMATION FOR SEQ ID NO: 311:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 311:
Xaa Lys Ser Ser Arg Ser Asn
1 5
- (2) INFORMATION FOR SEQ ID NO: 312:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 312:
Xaa Ser Ser Arg Ser Asn Pro Gly
1 5

(2) INFORMATION FOR SEQ ID NO: 313:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 313:
Xaa Arg Ser Asn Pro Arg Gly
1 5

(2) INFORMATION FOR SEQ ID NO: 314:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 314:
Xaa Ser Asn Pro Arg Gly
1 5

(2) INFORMATION FOR SEQ ID NO: 315:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

UNITED STATES PATENT AND TRADEMARK OFFICE
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APPLICATION NO. : 09/079678
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INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 315:

Xaa Pro Arg Gly Arg Arg His

1 5

(2) INFORMATION FOR SEQ ID NO: 316:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 316:

Xaa Arg Arg His Pro Gly

1 5

(2) INFORMATION FOR SEQ ID NO: 317:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 317:

Xaa Lys Ser Ser Arg Gly Asn

1 5

(2) INFORMATION FOR SEQ ID NO: 318:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 318:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Xaa Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 319:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 319:

Xaa Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly Arg Arg His Pro
1 5 10 15
Gly

(2) INFORMATION FOR SEQ ID NO: 320:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 320:

Xaa Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly Arg Arg His Pro
1 5 10 15
Gly

(2) INFORMATION FOR SEQ ID NO: 321:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 321:

Xaa Thr Asn Ala Lys His Ser Ser His Asn
1 5 10

(2) INFORMATION FOR SEQ ID NO: 322:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 322:

Xaa Arg Arg Leu Arg Thr Arg Ser Arg Pro Asn
1 5 10

(2) INFORMATION FOR SEQ ID NO: 323:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 323:

Xaa Arg Arg Leu Arg Thr Arg Ser Arg
1 5

(2) INFORMATION FOR SEQ ID NO: 324:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 324:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Xaa Arg Arg Leu Arg Thr Arg
1 5

(2) INFORMATION FOR SEQ ID NO: 325:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 325:

Xaa Arg Arg Leu Arg Thr Arg Ser Arg Pro Asn
1 5 10

(2) INFORMATION FOR SEQ ID NO: 326:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 326:

Xaa Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys
1 5 10 15
Glu Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly
20 25

(2) INFORMATION FOR SEQ ID NO: 327:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 327:

Xaa Gly Asp Tyr Asn Cys Cys Gly Asn Ser Thr Gly Arg Lys
1 5 10 15
Val Phe Asn Arg Arg Arg Pro Ser Ala Ile Pro Thr
20 25

(2) INFORMATION FOR SEQ ID NO: 328:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 328:

Xaa Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys
1 5 10 15
Glu Pro Gly Cys
20

(2) INFORMATION FOR SEQ ID NO: 329:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Other
- (B) LOCATION: 1...1
- (D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 329:

Xaa Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10

(2) INFORMATION FOR SEQ ID NO: 330:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 330:
Xaa Arg Lys Val Phe Asn Arg Arg Arg Pro Ser Ala Ile Pro Thr
1 5 10 15
- (2) INFORMATION FOR SEQ ID NO: 331:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 331:
Xaa Arg Lys Val Phe Asn Arg Arg Arg Pro Ser
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 332:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 332:
Xaa Asn Arg Arg Arg Pro Ser Ala Ile Pro Thr
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 333:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 333:

Xaa Asn Arg Arg Arg Pro Ser
1 5

(2) INFORMATION FOR SEQ ID NO: 334:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 334:

Ser Thr Pro Pro Ser Arg Glu Ala Tyr Ser Arg Pro Tyr Ser Val Asp
1 5 10 15
Ser Asp Ser Asp Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu
20 25 30
Arg Thr Arg Ser Arg Pro Asn Gly
35 40

(2) INFORMATION FOR SEQ ID NO: 335:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 44 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 335:

Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys Glu
1 5 10 15
Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly Arg Lys
20 25 30
Val Phe Asn Arg Arg Arg Pro Ser Ala Ile Pro Thr
35 40

(2) INFORMATION FOR SEQ ID NO: 336:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 336:
Xaa Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys
1 5 10 15
Glu Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr
20 25 30

(2) INFORMATION FOR SEQ ID NO: 337:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 337:

Xaa Asn Leu Arg Ser Asp Asn Ala Lys Glu Pro Gly Asp Tyr Asn Cys
1 5 10 15
Cys Gly Asn Gly Asn Ser Thr Gly Arg Lys Val Phe Asn Arg
20 25 30

(2) INFORMATION FOR SEQ ID NO: 338:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 338:

Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly Arg
1 5 10 15
Lys Val Phe Asn Arg Arg Pro Ser Ala Ile Pro Thr
20 25

(2) INFORMATION FOR SEQ ID NO: 339:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 339:
 Xaa Ala Ser His Asn Arg Arg Leu Arg Thr Arg
 1 5 10

(2) INFORMATION FOR SEQ ID NO: 340:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 340:
 Xaa Ser Ala His Asn Arg Arg Leu Arg Thr Arg
 1 5 10

(2) INFORMATION FOR SEQ ID NO: 341:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 341:
 Xaa Ser Ser Ala Asn Arg Arg Leu Arg Thr Arg
 1 5 10

(2) INFORMATION FOR SEQ ID NO: 342:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 342:

Xaa Ser Ser His Ala Arg Arg Leu Arg Thr Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 343:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 343:

Xaa Ser Ser His Asn Ala Arg Leu Arg Thr Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 344:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 344:

Xaa Ser Ser His Asn Arg Ala Leu Arg Thr Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 345:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 345:
 Xaa Ser Ser His Asn Arg Arg Ala Arg Thr Arg
 1 5 10
- (2) INFORMATION FOR SEQ ID NO: 346:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
 (ii) MOLECULE TYPE: peptide
 (ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 346:
 Xaa Ser Ser His Asn Arg Arg Leu Ala Thr Arg
 1 5 10
- (2) INFORMATION FOR SEQ ID NO: 347:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
 (ii) MOLECULE TYPE: peptide
 (ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 347:
 Xaa Ser Ser His Asn Arg Arg Leu Arg Ala Arg
 1 5 10
- (2) INFORMATION FOR SEQ ID NO: 348:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
 (ii) MOLECULE TYPE: peptide
 (ix) FEATURE:

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 348:
Xaa Ser Ser His Asn Arg Arg Leu Arg Thr Ala
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 349:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 349:
Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 350:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 41 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 350:
Xaa Gly Arg Asn His Asp Val Val Ser Ser Asn Thr His Lys Ser Tyr
1 5 10 15
Arg Ser Pro Arg Ser Ala Ser Tyr Pro Arg Leu Ser Asn Asp Arg Thr
20 25 30
Asp Arg Thr Glu Pro Ala Pro Ser Ser
35 40
- (2) INFORMATION FOR SEQ ID NO: 351:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 351:
Xaa Arg Asn Thr Arg Asn Lys Thr Ser Arg Leu Ser Ala Asn Pro His
1 5 10 15
Arg Ser His Arg
20
- (2) INFORMATION FOR SEQ ID NO: 352:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 20...20
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 352:
Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg Ser
1 5 10 15
Arg Pro Asn Xaa
20
- (2) INFORMATION FOR SEQ ID NO: 353:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 10...10
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 353:
Arg Arg Leu Arg Thr Arg Ser Arg Lys Xaa
1 5 10
- (2) INFORMATION FOR SEQ ID NO: 354:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 354:

Xaa Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys
1 5 10 15
Glu Pro Gly Asp Tyr
20

(2) INFORMATION FOR SEQ ID NO: 355:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 355:

Xaa Ser Asp Asn Ala Lys Glu Pro Gly Asp Tyr Asn Cys Cys Gly Asn
1 5 10 15
Gly Asn Ser Thr Gly
20

(2) INFORMATION FOR SEQ ID NO: 356:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 356:

Xaa Ser Asp His Ala Leu Gly Thr Asn Leu Arg Ser Asp Asn Ala Lys
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 357:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids

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(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 357:
 Xaa Glu Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
 1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 358:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 358:
 Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
 1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 359:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 359:
 Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly
 1 5 10

(2) INFORMATION FOR SEQ ID NO: 360:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 amino acids
 (B) TYPE: amino acid

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(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(vi) ORIGINAL SOURCE:
(A) ORGANISM: MEMORY
(B) STRAIN: DISPLAY MEMORY
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 360:
Xaa Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10

(2) INFORMATION FOR SEQ ID NO: 361:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 361:
Xaa Lys Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly Arg Arg His
1 5 10 15
Pro Gly

(2) INFORMATION FOR SEQ ID NO: 362:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 362:
Xaa Lys Thr Arg Lys Ser Ser Arg Ser Asn Pro Arg Gly Arg Arg His
1 5 10 15
Pro Gly

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 363:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 363:

Xaa Lys Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr
1 5 10 15
Arg

(2) INFORMATION FOR SEQ ID NO: 364:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 364:

Xaa Thr Asn Ala Lys His Ser Ser Cys Asn Arg Arg Cys Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 365:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 365:

Xaa Thr Asn Ala Lys His Ser Ser Cys Asn Arg Arg Leu Arg Cys Arg
1 5 10 15

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(2) INFORMATION FOR SEQ ID NO: 366:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 366:

Xaa Ala Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 367:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 367:

Xaa Thr Ala Ala Lys Asn Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 368:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 368:

Xaa Thr Asn Gly Lys Asn Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 369:

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(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 16 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1
- (D) OTHER INFORMATION:** Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 369:

Xaa Thr Asn Ala Lys Ala Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 370:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 16 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1
- (D) OTHER INFORMATION:** Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 370:

Xaa Thr Asn Ala Lys His Ala Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 371:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:** 16 amino acids
- (B) TYPE:** amino acid
- (C) STRANDEDNESS:** single
- (D) TOPOLOGY:** unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY:** Other
- (B) LOCATION:** 1...1
- (D) OTHER INFORMATION:** Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 371:

Xaa Thr Asn Ala Lys His Ser Ala His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 372:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 372:
Xaa Thr Asn Ala Lys His Ser Ser Ala Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 373:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 373:
Xaa Thr Asn Ala Lys His Ser Ser His Ala Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 374:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 374:
Xaa Thr Asn Ala Lys His Ser Ser His Asn Ala Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 375:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 amino acids

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(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 375:
 Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Ala Leu Arg Thr Arg
 1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 376:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 376:
 Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Ala Arg Thr Arg
 1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 377:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 377:
 Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Ala Thr Arg
 1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 378:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 amino acids
 (B) TYPE: amino acid

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(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 378:
Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Ala Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 379:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 379:
Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Ala
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 380:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 380:
Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 381:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single

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(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 381:
Xaa Lys Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr
1 5 10 15
Arg

(2) INFORMATION FOR SEQ ID NO: 382:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 382:
Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 383:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 383:
Xaa Lys Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10

(2) INFORMATION FOR SEQ ID NO: 384:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 12 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single

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- (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 384:
 Xaa Lys Ser Ser His Asn Arg Arg Leu Arg Thr Arg
 1 5 10
- (2) INFORMATION FOR SEQ ID NO: 385:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 385:
 Xaa Lys Thr Asn Ala Lys His Ser Ser His Asn Arg
 1 5 10
- (2) INFORMATION FOR SEQ ID NO: 386:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
 (A) NAME/KEY: Other
 (B) LOCATION: 1...1
 (D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 386:
 Xaa Lys Thr Asn Ala Lys His Ser Ser His Asn Arg
 1 5 10
- (2) INFORMATION FOR SEQ ID NO: 387:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: unknown

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(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 387:

Xaa Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 388:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 388:

Xaa Ala Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 389:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 389:

Xaa Pro Ala Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 390:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 390:

Xaa Pro Gly Ala Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 391:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 391:

Xaa Pro Gly Asp Ala Asn Cys Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 392:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 392:

Xaa Pro Gly Asp Tyr Ala Cys Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 393:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,053,177 B1
APPLICATION NO. : 09/079678
DATED : May 30, 2006
INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- (A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 393:
Xaa Pro Gly Asp Tyr Asn Ala Cys Gly Asn Gly Asn Ser Thr Gly
1 5 10 15
- (2) INFORMATION FOR SEQ ID NO: 394:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 394:
Xaa Pro Gly Asp Tyr Asn Cys Ala Gly Asn Gly Asn Ser Thr Gly
1 5 10 15
- (2) INFORMATION FOR SEQ ID NO: 395:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 395:
Xaa Pro Gly Asp Tyr Asn Cys Cys Ala Asn Gly Asn Ser Thr Gly
1 5 10 15
- (2) INFORMATION FOR SEQ ID NO: 396:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown
(ii) MOLECULE TYPE: peptide
(ix) FEATURE:
(A) NAME/KEY: Other

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
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INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 396:

Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Ala Gly Asn Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 397:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 397:

Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Ala Asn Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 398:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 398:

Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Ala Ser Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 399:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

UNITED STATES PATENT AND TRADEMARK OFFICE
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 399:

Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ala Thr Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 400:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 400:

Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Ser Ala Gly
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 401:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME/KEY: Other

(B) LOCATION: 1...1

(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 401:

Xaa Pro Gly Asp Tyr Asn Cys Cys Gly Asn Gly Asn Ser Thr Ala
1 5 10 15

(2) INFORMATION FOR SEQ ID NO: 402:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 402:

Thr Asn Ala Lys His Ser Ser His Asn Arg Arg Leu Arg Thr Arg
1 5 10 15

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INVENTOR(S) : Vernon L. Alvarez et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(2) INFORMATION FOR SEQ ID NO: 403:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 403:

Pro Gly Asp Tyr Asn Cys Cys Gly Asn Cys Asn Ser Thr Gly
1 5 10

(2) INFORMATION FOR SEQ ID NO: 404:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 404:

Ser Ala Arg Asp Ser Gly Pro Ala Glu Asp Gly Ser Arg Ala Val Arg
1 5 10 15
Leu Asn Gly Val Glu Asn Ala Asn Thr Arg Lys Ser Ser Arg Ser Asn
20 25 30
Pro Arg Gly Arg Arg His Pro Gly
35 40

(2) INFORMATION FOR SEQ ID NO: 405:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 405:

Gly Thr Arg Asn Ser His Gly Cys Ile Thr Arg Pro Leu Arg Gln Ala
1 5 10 15
Ser Ala His

(2) INFORMATION FOR SEQ ID NO: 406:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: <Unknown>

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,053,177 B1
159
APPLICATION NO. : 09/079678
DATED : May 30, 2006

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 406:
Xaa Arg Val Gly Gln Cys Thr Asp Ser Asp Val Arg Arg Pro Trp Ala
1 5 10 15
Arg Ser Cys Ala His
20

(2) INFORMATION FOR SEQ ID NO: 407:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:


(A) NAME/KEY: Other
(B) LOCATION: 1...1
(D) OTHER INFORMATION: Xaa=Lys(dns)

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 407:

Xaa Cys Gly Ala Gly Thr Arg Asn Ser His Gly Cys Ile Thr Arg Pro
1 5 10 15
Leu Arg Gln Ala Ser Ala His
20

Signed and Sealed this

Eighth Day of April, 2008



JON W. DUDAS
Director of the United States Patent and Trademark Office